Test Labs & Certification
The US Experience

Eileen Prado
Challenges

• Changing Standards
• Unique Data Requirements
• Small Industry
• Fewer Labs
• Few tests per lab
Cooperation

• True separation of duties
  – Unbiased Independent Testing
  – Unbiased Independent Evaluation

• 17065 Requires direct cooperation
  – Certification Body can identify data needed
  – Lab can identify processes required
SRCC’s Lab Selection

1. Lab Expresses Interest in SRCC Program
2. 17025 Accreditation is verified
3. SRCC Agreement & Invoice are sent
   A. Administration Fee
   B. Inspection Fee with travel costs
4. Lab Inspection Conducted
   A. Mutual Requirements detailed
   B. Checklist Completed
### SRCC Laboratory Test Program Accreditation Visit

<table>
<thead>
<tr>
<th>Laboratory name:</th>
<th>Date of visit:</th>
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</thead>
<tbody>
<tr>
<td>Address:</td>
<td>SRCC representative:</td>
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</tbody>
</table>

**Contact:**
- Phone: ____________________
- E-mail: ____________________

Application items still to be submitted:

**SRCC Test Procedures lab is to be approved for:**
- Standard 2000 – glazed liquid
- Standard 2000 – glazed air
- Standard 2000 – unglazed
- TM-1

**ISO 17025 scope:**
- ISO 9006-1
- ISO 9006-2
- ISO 9006-3
- Standard 100
- ASHRAE 93
- SECC TM-1
- Standard 600
- EN 12975
- EN 12976
- EN 12977-1

**ISO 17025 limits:**

<table>
<thead>
<tr>
<th>Key Personnel</th>
<th>Name</th>
<th>Phone</th>
<th>E-mail</th>
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<tbody>
<tr>
<td>Lab manager:</td>
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<tr>
<td>Quality manager:</td>
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<td>Test engineer:</td>
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<td>Technicians:</td>
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</tbody>
</table>

**Invoices to be sent to:**
- Others: ____________________

**Lab assignments:**
- Qualifies technicians
-Analyzes data
- Wrote report
- Approves report

**Instrument information:**

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Calibration frequency</th>
<th>Cal location</th>
<th>Cal lab</th>
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</thead>
<tbody>
<tr>
<td>Parametometer</td>
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<tr>
<td>Normal incidence</td>
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<tr>
<td>Pyrometer</td>
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<tr>
<td>Temperature</td>
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<td>Flow</td>
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<tr>
<td>Anemometer</td>
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<tr>
<td>Data acquisition</td>
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</tbody>
</table>

How is data gathered, stored, verified:

How is random selection accomplished?
- Visit manufacturer
- Photographs
- Other:

Test equipment / areas viewed:
- Collector receiving area
- Pressure test
- Pressure drop test
- Exposure test
  - Internal shock test
  - External shock test
- Time constant – shade
- Efficiency test – indoors
  - Liquid heating test rig
  - Unplugged backing
- Air heating test rig
- TM-1 test – indoors
- TM-1 test – outdoors
- Std 600 test – outdoors
- Impact test (list method)
- Disassembly inspection

Location (city / main site / secondary site) of test:

**Discussion Topics:**
- Test report contents
- Data file format and content
- Random selection
- Certified web site listing:
  - Company
  - Address
  - City
  - Phone
  - Fax
  - Contact
  - Web email

**Notes:**

**SRCC Signature**

- Date
SRCC’s Annual Lab Program

- Verify Accreditation to 17025
- Renew SRCC Agreement
- Verify Liability Insurance
- Collect Program Fee
- Send Lab new certificate
- Update our website
Participant Chooses the Lab

ISFH
Institut fur Solarenergieforschung GmbH, Hameln/Emmerthal
Am Ohrberg 1
Hameln/Emmerthal
Germany 31860
Telephone: +49-5151-999-100
Contact: Carsten Lampe
Web: http://www.isfh.de
E-mail: pruefstelle@isfh.de
Approval Date: July 6, 2009

EPA Recognized for Water Heaters – Solar Electric and Solar Gas
SRCC Test Program Approved to Perform:
Qualification Tests (Standard 100)
Glazed Liquid-heating Collector Efficiency (Standard 100)
Unglazed Liquid-heating Collector Efficiency (Standard 100)

ITW
Forschungs- und Testzentrum fur Solaranlagen (TZS) am Institute fur Thermodynamik und Warmetechnik der Universitat Stuttgart
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Fax: +49-711-685-63242
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Web: http://www.itw.uni-stuttgart.de
E-mail: fischer@itw.uni-stuttgart.de
Approval Date: June 12, 2009

SRCC Test Program Approved to Perform:
Qualification Tests (Standard 100)
Glazed Liquid-heating Collector Efficiency (Standard 100)
Unglazed Liquid-heating Collector Efficiency (Standard 100) TCS
Non-Separable Thermosiphon Components (SRCC TM-1)
Concentrating Solar Collectors (SRCC Standard 600)