



Welcome to the IDEA Webinar Series

- ☐ The webinar will **start promptly at 1:00pm EDT (Boston time) and is scheduled to last up to 1.5 hours; including time for questions.**
- ☐ Please **mute your phone** during the webinar. All lines are muted.
- ☐ If you are having problems with video or audio, please send a note via the Chat Box function on the right side. Click the Chat box and choose – “**Chat privately to Cheryl Jacques (host)**”. **Or call to IDEA at +1-508-366-9339.**
- ☐ **Questions to Presenters:** Please enter your **Questions** in the **Q&A** box at the lower right of the screen. These questions will be moderated and addressed as time allows. We plan to handle Q&A at the conclusion of the presentation.
- ☐ **Survey:** Please complete the brief on-line survey following the webinar.
- ☐ **Webinar Download or Streaming:** This Webinar will be recorded and available via download or streaming. Slides will be made available in pdf format. Please visit www.districtenergy.org.

DISTRICT ENERGY

- A TOP TEN LIST

PRESENTED BY:

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Webinar Leaders



Robert P. Thornton
MODERATOR



Brian Kirk
PANELIST



Vincent Badali
PANELIST

Agenda

- Design Criteria
- Operator Training and Development
- Procedures
- Knowledge Sharing

Design Criteria

System Configuration/Equipment Selection



Design Criteria

System Configuration/Equipment Selection

- Valves
- Traps
- Expansion Devices
- Manholes

Design Criteria

- Not difficult to create
- All progress is good
- Be flexible
- Repeatable
- Maintainable

System Configuration/Equipment Selection

Valves



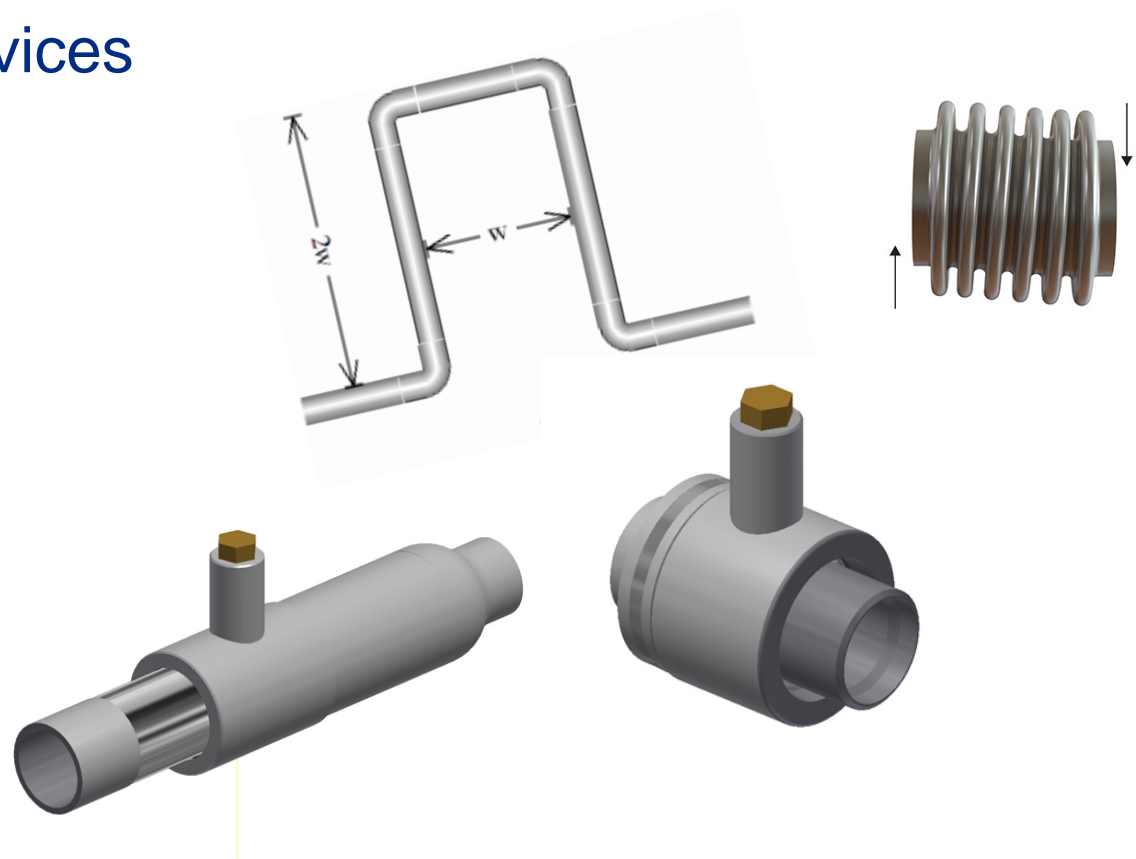
System Configuration/Equipment Selection

Traps



System Configuration/Equipment Selection

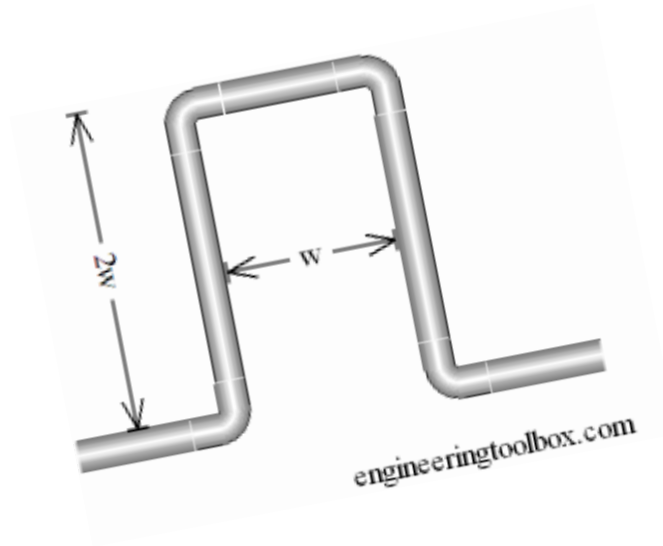
Expansion Devices



System Configuration/Equipment Selection

Expansion Devices

- Loops



System Configuration/Equipment Selection



System Configuration/Equipment Selection

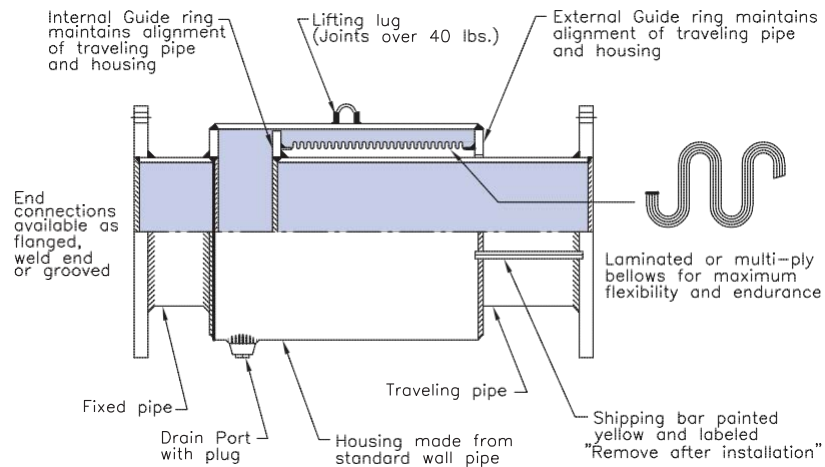
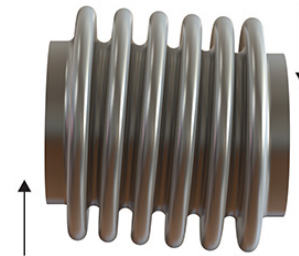


System Configuration/Equipment Selection



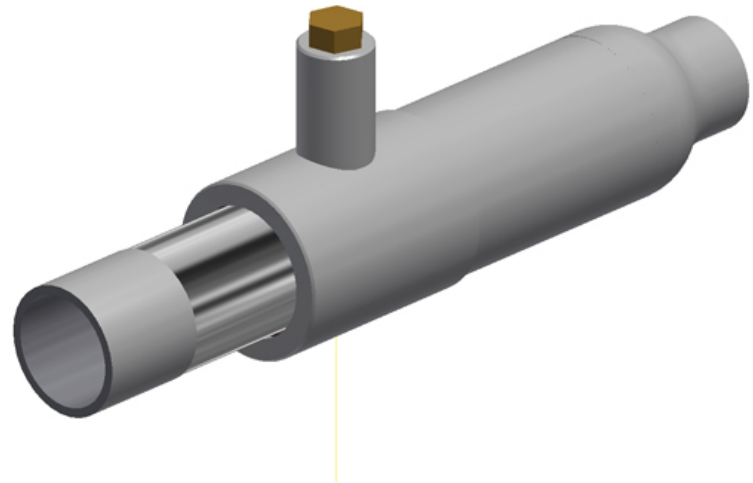
System Configuration/Equipment Selection

- ▶ Expansion Devices
 - Bellows joints



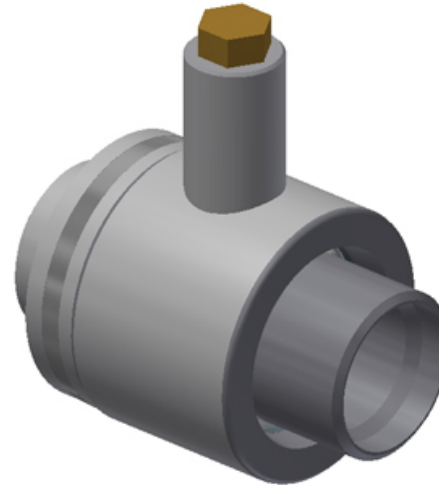
System Configuration/Equipment Selection

- ▶ Expansion Devices
 - Slip joints



System Configuration/Equipment Selection

- ▶ Expansion Devices
 - Ball joints



System Configuration/Equipment Selection

Manholes



System Configuration/Equipment Selection

Manholes



How's Your Bench?



Developing and Transferring Know-how

- Identifying, recruiting, testing, training, qualifying and retaining talent
- Demographics
- Skill sets of today vs yesterday
- “On-demand” knowledge and its place in an operating environment

Try asking Siri...

Q: I have a fire in my high pressure boiler furnace and water in the gage glass has gone out of sight low, what should I do?

A: "Hmm... let me think about that..."

1. ...You should check out the low water cutout switch...
2. ...You should never let the water go out of sight on a firing boiler...
3. ...Find great deals on eBay for Boiler Sight Glasses...

Q: I have a loss of flame in my boiler, and fuel is still going into the furnace, do I have to purge?

A: "This is what I found..."

- 1... ...Particularly important if fuel oil has spilled into the furnace.
2. ...For safe operation of any fuel or gas fired steam boiler...the boiler can explode...
3. ...the purge will evacuate... (Source: "How to Destroy a Boiler-Part I")

Testing/Training Resource Examples

- **IDEA:**

Talent Management Forum (and Workshops)

- **Edison Electric Institute: secure.eei.org/eeitests:**

Threshold screening – “POSS” module (similar to Military’s ASVAB)

- **quizlet.com/18024332/flashcards:**

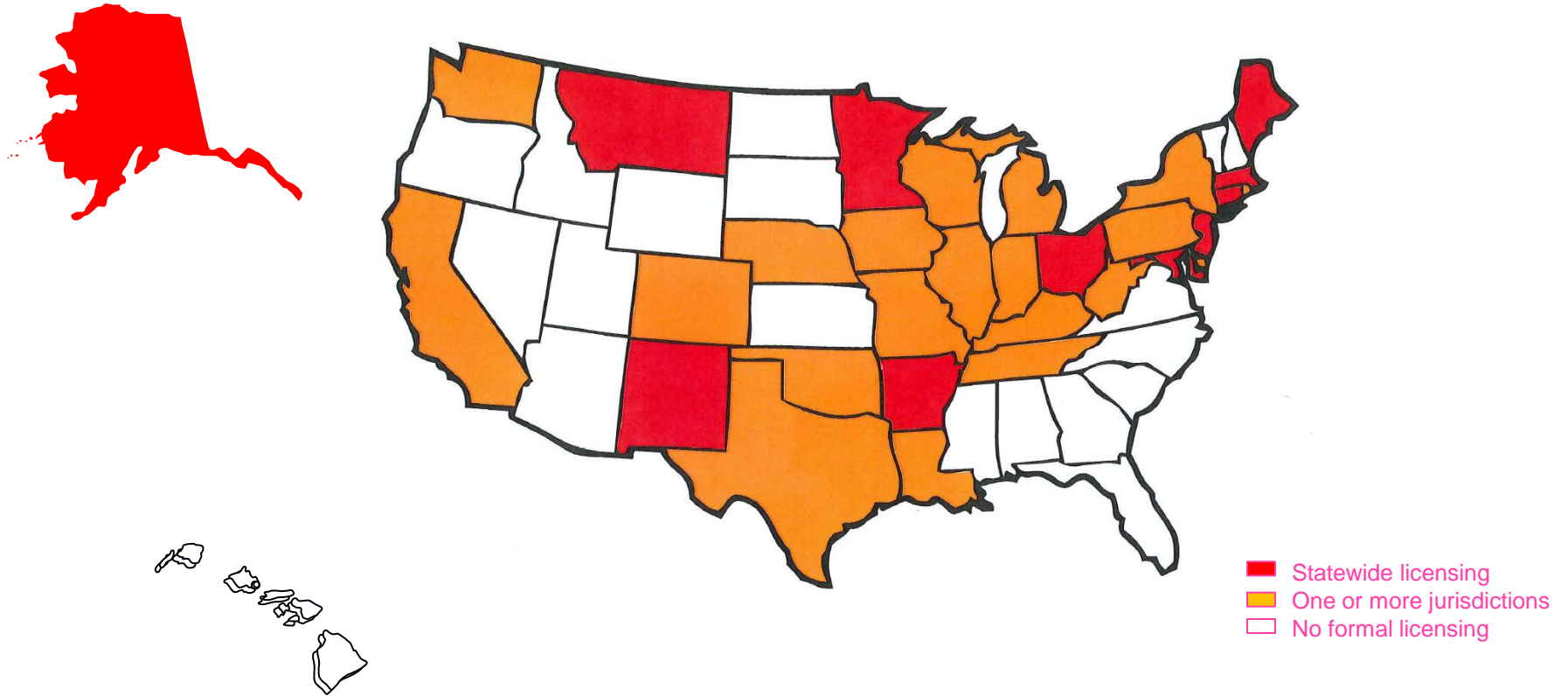
Boiler fundamentals

- **Site Specific Fundamentals:**

Steam-Water Cycle/System Tracing/Simulation/Demonstration

- **National Board of Boiler and Pressure Vessel Inspectors: Various Articles**

Stationary Engineer Licensure



Procedures



Procedure “Types”

- Watch – Routine inspections
- Warning - Non-routine situations
- Event and Aftermath – Emergency response

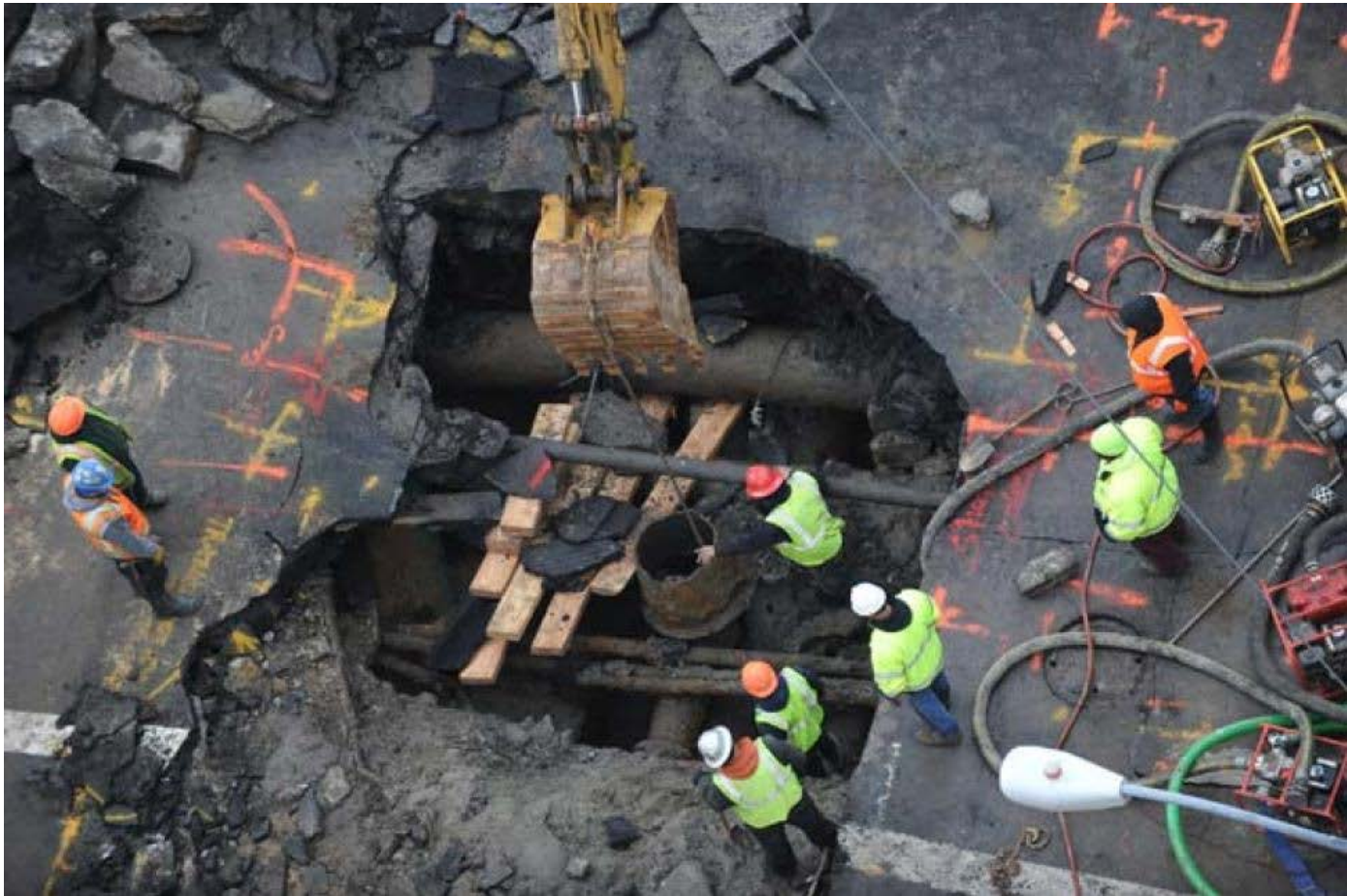














Are You Ready?



Mutual Assistance for District Energy (MADE)

Information

- ▶ <http://www.districtenergy.org/emergency-mutual-assistance-for-district-energy-made>

Table Top Exercise

- ▶ November 12
- ▶ A Con Edison/Veolia production
- ▶ More info coming soon

Join the Discussion

distribution-forum@googlegroups.com



Google Groups Distribution Forum

- Testing/qualifying new steam distribution personnel
- Best practices for insulating chilled water piping
- Spalling concrete in steam vaults
- Pumping hot water from manholes
- Security assessment of plant & distribution systems

Contact info

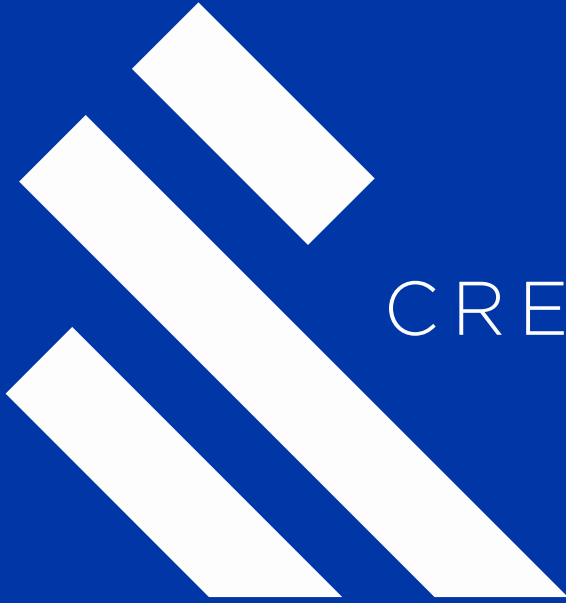
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CREATE AMAZING.