

**QA/QC Hot Topics and Best Practices**  
Jason Haupt - QC Technical Lead

# Agenda



- ASHRAE 62.2-2016 and the Ameren Illinois Energy Efficiency Program
- Natural Draft Water Heater Spillage Issues
- Income Qualified QC Work Inspection Check List
- Project Quality Best Practices

# ASHRAE 62.2- 2016

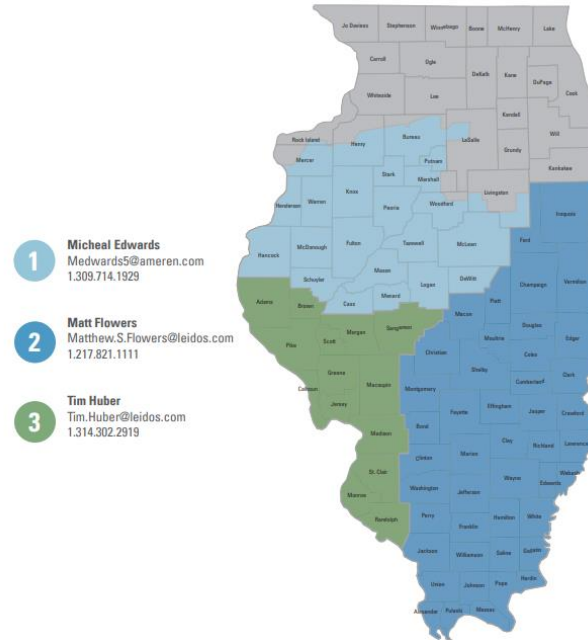
## Considerations for the Ameren Illinois Energy Efficiency Program



- When calculating the total floor area, all basements must be included in the calculation
- For the purposes of the Ameren Illinois Energy Efficiency Program, the Occupant Density for the home will be the number of bedrooms ( $N_{br}$ ) plus one
- Remember that there are other options to providing Required Mechanical Ventilation
- To refresh yourself on [ASHRAE 62.2-2016](#), please review the recorded webinar on the [Program Ally Portal](#)

# Spillage of Natural Draft Appliances

- We require that all natural draft appliances be tested under conditions of Greatest Possible Depressurization
- If you have any questions or issues, contact your Field Energy Specialist



# Income Qualified QC Work Inspection Check List



- This document is available on the [Program Ally Portal](#)
- This is a valuable tool to use with every project to reduce the likelihood of having issues with any possible QC Inspections

**AMEREN ILLINOIS ENERGY EFFICIENCY PROGRAM**

**Income Qualified QC Work Inspection Checklist**

Below are items subject to inspection by the quality control team as they pertain to each project. Each incentivized measure has sub-items that are associated with them, which are taken from the Available Residential Measures Guide and program field guides.

<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Health &amp; Safety</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Fuel Distribution System Inspection</li> <li><input type="checkbox"/> Ambient CO checked</li> <li><input type="checkbox"/> CAZ Safety Checked</li> <li><input type="checkbox"/> Spillage Assessment</li> <li><input type="checkbox"/> Combustion Safety Testing</li> <li><input type="checkbox"/> Venting systems correct: Please review BPI-1200</li> <li><input type="checkbox"/> Chimney liner installed</li> <li><input type="checkbox"/> Seal ducts in garage</li> <li><input type="checkbox"/> Unvented space heaters disconnected</li> <li><input type="checkbox"/> Meets ASHRAE guidelines</li> <li><input type="checkbox"/> Blower Door Test completed and recorded</li> </ul> <p style="font-size: x-small;">Gas Leak and Combustion Safety Testing is Required!</p>	<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Attic Insulation/Measures</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Insulation to R49</li> <li><input type="checkbox"/> Access insulation dam</li> <li><input type="checkbox"/> Access(es) Insulated</li> <li><input type="checkbox"/> Access(es) Air Sealed</li> <li><input type="checkbox"/> Soffit baffles installed</li> <li><input type="checkbox"/> Insulation rules installed</li> <li><input type="checkbox"/> Heat shielding</li> <li><input type="checkbox"/> Fans vented to exterior</li> <li><input type="checkbox"/> Attic properly vented</li> <li><input type="checkbox"/> Recessed lights protected</li> </ul> <p style="font-size: x-small;">Further details review RM-19.1.2.2, 1.3.R.</p>	<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Furnace Measures</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Smart Stat installed</li> <li><input type="checkbox"/> Approved equipment</li> <li><input type="checkbox"/> Matches AHRI Certificate</li> <li><input type="checkbox"/> Intake/Exhaust to exterior</li> <li><input type="checkbox"/> Gas shut off installed</li> <li><input type="checkbox"/> Sediment trap</li> <li><input type="checkbox"/> Electrical disconnect</li> <li><input type="checkbox"/> Filter system functional</li> <li><input type="checkbox"/> Filter system sealed</li> <li><input type="checkbox"/> Cond. freeze protected</li> </ul> <p style="font-size: x-small;">Further details review RM-19.1.3.1, 1.3.2, 1.3.4</p>
<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Direct Install Measures</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Measures installed</li> </ul> <p style="font-size: x-small;">Install as per submitted DIM form</p> <p style="font-size: x-small;">Direct install measures are required to be installed on each home we serve.</p>	<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Wall Insulation</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Wall cavities complete</li> <li><input type="checkbox"/> Holes patched - 1 coat</li> </ul> <p style="font-size: x-small;">Further details review RM-19.1.2.3</p>	<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">CAC/HP Measures</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Approved equipment</li> <li><input type="checkbox"/> Properly sized tons</li> <li><input type="checkbox"/> Matches AHRI Certificate</li> <li><input type="checkbox"/> Installation quality</li> <li><input type="checkbox"/> Line set insulated</li> <li><input type="checkbox"/> Electrical disconnect</li> <li><input type="checkbox"/> Heat Pump verified</li> </ul> <p style="font-size: x-small;">Further details review RM-19.1.3.3</p>
<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Air Sealing</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Attic penetrations</li> <li><input type="checkbox"/> Plumbing penetrations</li> <li><input type="checkbox"/> Duct penetrations</li> <li><input type="checkbox"/> Garage penetrations</li> <li><input type="checkbox"/> Garage door tight fitting</li> </ul> <p style="font-size: x-small;">Further details review RM-19.1.2.1</p>	<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Basement Joists Insulation</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Insulation to R10</li> </ul> <p style="font-size: x-small;">Further details review RM-19.1.2.4</p>	<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Crawl Space Insulation</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Vapor barrier installed</li> <li><input type="checkbox"/> Vents closed up</li> <li><input type="checkbox"/> Access insulated &amp; sealed</li> </ul> <p style="font-size: x-small;">Further details review RM-19.1.2.5</p>
<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Duct Sealing</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Insulated &amp; sealed</li> </ul> <p style="font-size: x-small;">Further details review RM-19.1.3.8</p>	<p style="text-align: center; background-color: #008000; color: white; font-weight: bold; font-size: small;">Incentive Paperwork</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Reflects accurately the work performed on the home.</li> </ul>	

Program Ally Signature \_\_\_\_\_ Date \_\_\_\_\_

PLEASE CHECK EACH ITEM OFF THE LIST WHEN COMPLETED AND SUBMIT WITH INCENTIVE APPLICATION  
 Some items may not be applicable to your particular project as each home may vary. This checklist will ensure that the program allies installation crews and the quality control team members are all on the same page and to help eliminate the need for return orders. If a measure is not applicable then leave that section blank. All available measures should be performed if they qualify.

# Project Quality Best Practices

- More information is helpful - use the notes section of the Work Scope to annotate any information that would be useful for the QC Team and the TR Team
- Make use of the Change Order Form - anything that changed from the time of the Reservation to the time of Incentive Application submission can be included on this form
- Customer health and safety is a high concern - this means that we are concerned with indoor air quality
  - Filter slot covers
  - Proper ventilation
  - Proper insulation of attic access
  - Connection to potential sources of CO
- Ensure all equipment is installed per manufactures instructions and recommendations

# Project Quality Best Practices

- When you run into issues or have any questions do not hesitate to reach out to your Field Energy Specialist

## Seek Guidance Before Acting

- Check with your Field Energy Specialist if something is out of the ordinary on a project; they can provide you with guidance to determine a path
- If approval for a circumstance is not granted prior to work commencement, your customer may not be eligible for the incentive

# QUESTIONS?





**Energy Efficiency**  
PROGRAM

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