AIR-CONDITIONING, HEATING, & REFRIGERATION INSTITUTE
we make life better®

2311 Wilson Boulevard Suite 400 Arlington VA 22201 USA
Phone 703 524 8800 | Fax 703 562 1942
www.ahrinet.org

Exhibit 2
Summary of the Work of the Safety Standard Working Group of the
OEM Safe Transition Taskforce

March 20, 2020

The OEM Task Force member companies provided a technical and a policy representative to discuss the air conditioning (AC) safety standards with AHRI staff and representatives from UL and ASHRAE. The group noted that there are no unresolvable conflicts or differences between the ASHRAE 15 (2019), UL/CSA 650335-2-20 (2019) and ASHRAE 15.2(P). The group focused on direct (residential and light commercial, but not applied) applications and concluded that there are differences between the safety standards. However, there was agreement that the most stringent requirement must be followed as identified in the attached spreadsheet. No issues were identified as being unresolvable.

There is a reconciliation process underway to align the standards as much as possible. The list generated by this working group will be provided to the standards review group to assist in their reconciliation process. It will be helpful to align the standards as much as possible, but since they are all updated on different schedules and they serve different functions, it is unlikely under the current structure that they will ever be exactly the same. Therefore, the most stringent requirements will always need to be followed.

Summary of the Safety Standards Evaluation

- Residential Application/Installation Requirements only in ASHRAE 15.2 (P)
  - 1 installation requirement (No louvred doors allowed in charge calculation)
  - 1 restriction that is unlikely to impact residential settings.
- Equipment Design Requirements only in ASHRAE 15.2 (P)
  - 1 UL Collaborated Standard Development System request has been submitted to add requirement to UL60335-2-40 (Limited practical significance)
- Equipment Design Requirements UL/CSA 60335-2-40
  - 1 UL Collaborated Standard Development System request has been submitted to add requirement to UL60335-2-40
  - 1 interpretation request
- Miscellaneous
  - 1 noted as being of no practical significance
  - 1 UL Collaborated Standard Development System request has been submitted to add requirement to UL60335-2-40

Residential Application/Installation Requirements only in ASHRAE 15.2 (P)

- Does not allow consideration of connected rooms with a door with louvres in the calculation of allowed charge quantity.
    - UL 60335-2-40 allows a door with louvres; ASHRAE 15.2 does not
    - UL Collaborated Standard Development System (CSDS) could be submitted to align standards
    -
- Allows 3-4 lbs additional charge more than 25% LFL in a ductless system
    - Allowance based on ventilation limit of 200 cfm
    - This restriction is unlikely to impact residential settings.

Limited Practical Significance* Equipment Design Requirement only in ASHRAE 15.2 (P)

- Split system indoor coil must always have a sensor
    - Split system with an air handler and package unit do not require detection with a charge less than 4 lbs*

  * This was noted as being of limited practical significance because line-set would likely increase charge above 4lb limit which would require sensor for most systems
- UL Collaborated Standard Development System request has been submitted to add this requirement to UL60335-2-40 now

Equipment Design Requirements UL/CSA 60335-2-40

- UL Certification Requirement Decision (CRD) requires Protected Electronic Circuit (PEC) guidelines to be followed in UL 60335-2-40.
    - Petition needs to be completed for CSA to add this requirement
    - Needs to be communicated to all listing organizations
- UL/CSA 60335-2-40 interpretation question: multi-split systems do not require safety shut-off valves to be closed to minimize releasable charge
    - Will be submitted to UL CSDS system for resolution

Limited practical significancel* Residential Application/Installation Requirements only in ASHRAE 15.2 (P)

- ASHRAE 15.2 (P): M2 or ~32 to 35 pound charge limit for residential systems in a single circuit
    - This was noted as being of limited practical significance as residential systems rarely, if ever, exceed 30 lbs per circuit.

  Note : There is no limitation of square footage on residential buildings.
  Note: VRF will be limited by the releasable quantity rather than charge limit

No Practical Significance - Retrofit

- ASHRAE 15.2(P): Does not allow retrofit of system to refrigerant in a different ASHRAE safety class
    - This was noted as being of no practical significance as EPA does not allow retrofit to refrigerant of a more hazardous ASHRAE safety class

AHRI Guideline M

- Some members disagree with the already issued AHRI Guideline M (and worldwide practice) for right-hand/left-hand thread usage on equipment.
    - This will be submitted to UL CSDS system for resolution.

ASHRAE 15.2 (P) Approval Process

- Current draft
    - ASHRAE SSPC 15 Committee will vote for public review
        - Majority of committee members must vote with 2/3 of those voting in favor (7.2.4.2)
    - ASHRAE editorial review will likely be complete mid-April
    - Public Review mid-April to end May
- ASHRAE 15.2 would resolve comments and update draft
- Committee chair goal is to publish in December for inclusion in ICC code proposal January 8, 2021

Request for guidance from the OEM Task Force

- Should we change process to increase likelihood of harmonization
- Should standards be consolidated to remove chance of differences
- Should standards be updated to address differences and add clarifications
- Should we propose amendments as part of CalFire process and legislation to harmonize the standards