

Advisory Note

A Service to A.G. Coombs Group Clients.

HVAC&R Maintenance and the Revision to AIRAH DA19

Maintenance of Heating Ventilating, Air-conditioning Ventilation & Refrigeration services is carried out to reduce the occurrence of system failures, optimise the performance of systems, and to extend the service life of plant. Maintenance is necessary to ensure safety, reliability and comfort, as well as manage operational costs and environmental ratings. Some maintenance is required by legislation.

The correct maintenance of HVAC systems contributes significantly to the cleanliness and quality of indoor environments.

For more than 20 years, the Australian Institute of Refrigeration Air-conditioning and Heating's (AIRAH) DA19 HVAC&R Maintenance manual has been the definitive reference guide for HVAC&R maintenance in Australia – defining what it is, why it's performed and how to go about it.

Outlining best management practices, DA19 defines a structured process for the development of a system of maintenance appropriate to a specific building or application. The technical resource also describes the roles and responsibilities of supply-chain stakeholders. The manual covers maintenance for all components of HVAC&R systems.

DA19 was revised and significantly updated in 2019 with substantial input from building owners and managers, maintenance providers and equipment manufacturers. The revision was initiated by changes in the Australian regulatory landscape including, health regulations relating to maintenance, essential services maintenance regulations, the Introduction of Model WHS laws, changes to relevant Australian Standards and the introduction of significant new HVAC&R and digital technologies.

Significant updates in the new DA19 Maintenance Manual include:

- + Renewed focus on maintenance as an end-to-end process
- + Clearer articulation of the need for and benefits from HVAC&R maintenance, re-positioning maintenance as an investment rather than an expense.
- + Emphasis on maintenance as a partnership between stakeholders, with new input and alignment from facilities management perspectives.
- + New guidance on the development of objectives and key performance indicators for an outcomes-based maintenance approach.
- + Additional guidance on the selection of a maintenance strategy (preventative, predictive, etc.) and how to identify critical plant/systems and the 'risk' implications to a business of a system failure.

- + Detailed guidance on the specification, procurement and delivery of a HVAC&R maintenance program.
- + New section of guidance and information on the emerging digital trends that are impacting maintenance procurement, delivery and management – collectively called Smart Maintenance.
- + Updated material on targeted maintenance for system optimisation and tuning for continuous improvement, including sections on focusing maintenance for energy, water, refrigerant and indoor air quality management outcomes.
- + Revised, refreshed and new scheduled maintenance Frequency/Task lists for a wide range of HVAC&R components, plant and systems.
- + New maintenance schedules for HVAC&R controls, reflecting the importance of control systems to the effective operation of HVAC&R systems.
- + Alignment of terminology with the internationally recognised Facilities Management Standard – Australian Standard AS/ISO 41000 series.
- + Stratification of detailed maintenance schedules into Compliance Level (C), Good Practice Level (B) and Best practice Level (A) categories to provide increased transparency in maintenance procurement/delivery and recognising that DA19 is a guideline, not a maintenance specification.

The DA19 HVAC&R Maintenance manual is available from:
<https://www.airah.org.au/>

A DA19 user guide is also available. 'Specifying a Maintenance Package with DA19' is an online guide to assist building owners and managers to better understand the process required to use the revised DA19, to best specify their maintenance needs. The step-by-step guide was developed with support from the ARBS Education & Research Foundation (<https://arbsfoundation.com.au/>).

Specifying a Maintenance Package with DA19 user guide can be downloaded from: <https://da19fmuserguide.com/>

For assistance with the application of DA19 and or the preparation of HVAC&R maintenance programs contact:

Jamie Park – Project Engineer, A.G. Coombs Advisory
P: +61 3 9248 2700
E: jpark@agcoombs.com.au

A.G. Coombs Group Pty. Ltd.

Melbourne | Sydney | Brisbane | Canberra

P: +61 3 9248 2700 F: +61 3 9248 2751 W: www.agcoombs.com.au

