SECTION 17: Engineering

A. SUMMARY

B. DEFINITIONS

C. POLICY

D. OWNERSHIP AND APPROVAL

E. REFERENCES
A. SUMMARY
This Carrier Engineering Policy documents provides clarification and instruction on a variety of key activities that enable engineering to deliver safe, reliable, and competitive products.

B. DEFINITIONS
All capitalized terms not defined in this policy are defined in CPM 1: Governance & Definitions including Exhibit 1: Compliance Glossary

C. POLICY
Engineering reporting units shall comply with all applicable industry codes and standards to ensure regulatory compliance in areas of safety, environmental requirements, and product performance. Engineering shall also comply with Carrier’s quality and product safety policies. It is the responsibility of the engineering leader for each reporting unit to establish a relevant list of codes and standard work instructions applicable to products within their segments. Reference the engineering standards, quality, and product safety websites for specific documents.

Engineering shall mitigate enterprise risks and/or identified issues associated with new product development using a common risk tool method as defined in engineering standard work instruction ENG-SW-006. Product design risks are identified and managed following design failure modes effects analysis (DFMEA). Critical components, materials, and processes shall be identified during product development with appropriate control actions.

Engineering development projects and changes to existing products will comply with Carrier quality passport policies and associated standard work instructions. Engineering shall implement product changes and develop new products using different types of design reviews as defined in ENG-SW-014.

To ensure technologies are ready for detailed design activities in support of product development, engineering teams across sub-reporting units shall ensure compliance to technology readiness standard work ENG-SW-024. Any early release of technology and product development materials to customer(s) prior to their full release for production shall follow standard work instructions ENG-SW-004 and ENG-SW-005.

Design standard work instructions and/or workflows shall be established by the engineering functions within Carrier sub-reporting units. These documents shall govern how design requirements and design practices provide for consistent and expected results. Engineering standard work within each Business Unit shall be updated at intervals defined by the business unit or engineering reporting units and shall include lessons learned as well as other improvement opportunities.
Engineering design data, including associated records from design development testing and/or analyses, shall be retained and secured per Carrier’s record retention polices or per engineering standard work instructions of the Business or Reporting Units. This ensures proper controls for backup and protection against loss from cybersecurity or other hazardous threats.

Engineering development projects shall be in accordance with applicable cybersecurity standards.

D. OWNERSHIP AND APPROVAL
The Vice President of Engineering is the owner of this policy.

E. REFERENCES
All referenced CPM and CPSW can be retrieved from ePolicy.

Field Trials (ENG-SW-004)
Follow the Fleet (ENG-SW-005)
Risk Management (ENG-SW-006)
Design Reviews (ENG-SW-014)
Technology Readiness Level Standard Work (ENG-SW-024)