Environmental Specifications for Telecommunications Facilities
Computing & Communications Services - California State University, Chico

Requirements for Telecommunications Facilities

Room temperature should be maintained in the range 60°F - 85°F. If this range can be maintained by the incorporation of adequate ventilation means, then mechanical cooling is not required. If this temperature range cannot be maintained by ventilation alone, then mechanical cooling will be required.

The relative humidity should range from 30% to 60%.

Positive pressure should be maintained at all times to prevent the introduction of contaminants. Exhaust fans shall be considered only as a tertiary means of cooling when all other options have been depleted.

The ambient temperature and humidity shall be measured at a distance of five (5) feet above the floor level, after the equipment is in operation, at any point along an equipment aisle centerline.

Temperature, and humidity requirements are on a 24-hour, 7 day-a-week basis regardless of the heat generated by normally operating communication equipment.

Relevant Specifications Documents (Telecommunications Facilities)

- ANSI/TIA/EIA-569-B
  (Commercial Building Standards for Telecommunications Pathways and Spaces) - May 2009
  - Section 7.12.4.2 - Equipment Room Environmental (64°F - 75°F @ 30%-55% RH)

  - Chapter 7-53 - Environmental Controls for Telecom Spaces (68°F - 77°F @ 40%-55% RH)

  - Section 2.3.2.3, Figure 2-6 - Telecommunications Rooms (60°F -85°F or 65°F /80°F)

- ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers)
  Environmental Guidelines for Datacom Equipment – 2008
  - Table 1 (64.4°F – 80.6°F @ 60% RH)

Equipment Specific Requirements

- Liebert UPS Units Acceptable Temperature Range: 32°F - 77°F
- Liebert External Battery Units Acceptable Temperature Range: 72°F - 78°F
  Temperatures above 78°F reduce operating life
  Temperatures below 72°F reduce battery performance
- Alcatel/Lucent Network Switches Acceptable Temperature Range: 32°F - 113°F

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