Informational Note No. 1: See Article 100 for the definitions of patient care space categories.

Informational Note No. 2: See 220.14(I) for the calculation of receptacle outlet loads.

## N Part VII. Marinas, Boatyards, Floating Buildings, and Commercial and Noncommercial Docking Facilities

N 220.120 Receptacle Loads. General lighting and other loads in marinas, boatyards, floating buildings, and commercial and noncommercial docking facilities shall be calculated in accordance with Part III of this article and, in addition, the demand factors set forth in Table 220.120 shall be permitted for each service or feeder circuit supplying receptacles that provide shore power for boats. These calculations shall be permitted to be modified as indicated in Notes (1) and (2) of Table 220.120. Where demand factors of Table 220.120 are applied, the demand factor specified in 220.61(B) shall not be permitted.

Informational Note: These demand factors could be inadequate in areas of extreme hot or cold temperatures with loaded circuits for heating, air-conditioning, or refrigerating equipment.

# N TABLE 220.120 Demand Factors for Shore Power Receptacle Loads

| Number of Shore Power<br>Receptacles | Sum of the Rating of the<br>Receptacles (%) |
|--------------------------------------|---|
| 1–4                                  | 100   |
| 5–8                                  | 90  |
| 9-14                                 | 80  |
| 15-30                                | 70  |
| 31–40                                | 60  |
| 41-50                                | 50  |
| 51-70                                | 40  |
| ≥71                                  | 30  |

#### Notes:

- 1. Where shore power accommodations provide two receptacles specifically for an individual boat slip and these receptacles have different voltages (e.g., one 30-ampere, 125-volt and one 50-ampere, 125/250-volt), only the receptacle with the larger kilowatt demand shall be required to be calculated.
- 2. For each shore powered pedestal being installed that includes an individual kilowatt-hour submeters for each slip and is being calculated using the criteria listed in Table 220.120, the total demand amperes shall be permitted to be multiplied by 0.9 to achieve the final demand amperes of the facility.
- 3. If a circuit feeding a boat hoist and shore power for the same boat slip is shared, only the load with the larger kilowatt demand shall be required to be counted in the load calculation.



### **Outside Branch Circuits and Feeders**

#### N Part I. General

**225.1 Scope.** This article covers requirements for outside branch circuits and feeders not over 1000 volts ac or 1500 volts dc, nominal, run on or between buildings, structures, or poles on the premises; and electrical equipment and wiring for the supply of utilization equipment that is located on or attached to the outside of buildings, structures, or poles.

Informational Note: See Part IV of Article 235 for outside branch circuits and feeders over 1000 volts ac or 1500 volts dc.

Article 225 provides requirements unique to the installation of feeders and branch circuits outside (overhead and underground, not over 1000 volts ac or 1500 volts dc) of buildings and structures. These circuits may supply specific items of electrical equipment, or they may be the power supply to another building or structure. Examples of outside feeders and branch circuits include the following:

- Conductors supplying the buildings of a multibuilding industrial complex or institutional campus
- Outdoor supply conductors from an emergency system, a standby system, an alternative energy system, or on-site power generation
- Supply conductors between a dwelling unit and a detached garage or other structure

These requirements are in addition to the general requirements for branch circuits and feeders in Articles 210 and 215.

- **225.3 Other Articles.** Application of other articles, including additional requirements to specific cases of equipment and conductors, is shown in Table 225.3.
- **225.4 Conductor Insulation.** Where within 3.0 m (10 ft) of any building or structure other than supporting poles or towers, open individual (aerial) overhead conductors shall be insulated for the nominal voltage. The insulation of conductors in cables or raceways, except Type MI cable, shall be of thermoset or thermoplastic type and, in wet locations, shall comply with 310.10(C). The insulation of conductors for festoon lighting shall be of the thermoset or thermoplastic type.

Exception: Equipment grounding conductors and grounded circuit conductors shall be permitted to be bare or covered as specifically permitted elsewhere in this Code.

This exception and 250.184(A)(1), Exception No. 2, correlate to permit the use of the bare messenger wire of an overhead cable assembly as the grounded (neutral) conductor of an outdoor feeder circuit.