

all assemblies, equipment, conductors, and control and protective systems, as applicable, to verify the integrity of all the systems.

(7) Relays and Metering Utilizing Phase Differences. All relays and metering that use phase differences for operation shall be verified by measuring phase angles at the relay under actual load conditions after operation commences.

(B) Test Report. A test report covering the results of the tests required in 235.356(A) shall be delivered to the authority having jurisdiction prior to energization.

Informational Note: See ANSI/NETA ATS, *Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems*, for an example of acceptance specifications.

235.360 Clearances over Roadways, Walkways, Rail, Water, and Open Land.

(A) 22 kV or Less to Ground. The clearances over roadways, walkways, rail, water, and open land for conductors and live parts up to 22 kV or less to ground shall be not less than the values shown in Table 235.360(A).

TABLE 235.360(A) Clearances over Roadways, Walkways, Rail, Water, and Open Land

Location	Clearance	
	m	ft
Open land subject to vehicles, cultivation, or grazing	5.6	18.5
Roadways, driveways, parking lots, and alleys	5.6	18.5
Walkways	4.1	13.5
Rails	8.1	26.5
Spaces and ways for pedestrians and restricted traffic	4.4	14.5
Water areas not suitable for boating	5.2	17.0

(B) More Than 22 kV to Ground. Clearances for the categories shown in Table 235.360(A) shall be increased by 10 mm (0.4 in.) per kV, or major fraction thereof, more than 22 kV.

(C) Special Cases. For special cases, such as where crossings will be made over lakes, rivers, or areas using large vehicles such as mining operations, specific designs shall be engineered considering the special circumstances and shall be approved by the authority having jurisdiction.

Informational Note: See ANSI/IEEE C2-2017, *National Electrical Safety Code*, for additional information.

235.361 Clearances over Buildings and Other Structures.

(A) 22 kV or Less to Ground. The clearances over buildings and other structures for conductors and live parts up to 22 kV or less to ground shall be not less than the values shown in Table 235.361(A).

TABLE 235.361(A) Clearances over Buildings and Other Structures

Clearance from Conductors or Live Parts from:	Horizontal		Vertical	
	m	ft	m	ft
Building walls, projections, and windows	2.3	7.5	—	—
Balconies, catwalks, and similar areas accessible to people	2.3	7.5	4.1	13.5
Over or under roofs or projections not readily accessible to people	—	—	3.8	12.5
Over roofs accessible to vehicles but not trucks	—	—	4.1	13.5
Over roofs accessible to trucks	—	—	5.6	18.5
Other structures	2.3	7.5	—	—

(B) More Than 22 kV to Ground. Clearances for the categories shown in Table 235.361(A) shall be increased by 10 mm (0.4 in.) per kV, or major fraction thereof, more than 22 kV.

Informational Note: See ANSI/IEEE C2-2017, *National Electrical Safety Code*, for additional information.

These clearance requirements and specific distances over buildings and structures correlate with requirements in the *National Electrical Safety Code® (NESC®)*.

Part V. Services

235.401 General. Part V covers requirements for service conductors and equipment used on circuits over 1000 volts ac and 1500 volts dc, nominal, shall comply with all of the applicable requirements in Parts I through VII of Article 230 and with Part V of this article, which supplements or modifies those requirements. In no case shall the provisions of Part V apply to equipment on the supply side of the service point.

Only those conductors on the load side of the service-point connection are subject to the requirements of the NEC. The service point is a specific location where the supply conductors of the electric utility and the customer-owned (premises wiring) conductors connect.

Exhibit 235.1 depicts an installation where the transformer and service lateral to the service point are owned by the electric utility. The transformer secondary conductors between the service point (separate connection point outside the transformer in this scenario) and the service disconnecting means at the building are *underground service conductors* until the point at which they enter the building. From that point to the termination in the service equipment, they are *service-entrance conductors*.

In the installation depicted in Exhibit 235.2, the service disconnecting means is located at the customer-owned transformer primary. The conductors that connect the service point (at the top of the pole), the service disconnecting means, and the service/transformer overcurrent protective device (OCPD) are *underground service conductors*. The conductors between the transformer secondary and the line side of the building disconnecting means are *feeders* and are subject to the requirements in