5

Section 5

Heading	Page
Basic Requirements	5-1
Meter Clearances and Location Criteria	5-1
 PGE Electrical Equipment Room 	5-9
Clearances from Pools and Spas	5-16
Clearance from an Underground Fuel Storage Tank	5-16
Oil-Filled Transformer Separation from a Structure	5-16
 Separation of PGE Mineral-Oil-Filled Equipment from Other Oil-Filled Equipment 	5-18
 Location of a Less-Flammable Oil-Filled Transformer Next to a Building and Other Oil-Filled Equipment 	5-19
• Working Clearances Around Pad-Mounted Electrical Equipment	5-20
Working Clearances Around PGE Submersible Equipment	5-23
• Separation of Electrical Equipment and Meter from a Gas Meter	
Set	5-24
 PGE Secondary Voltage Pedestal and Handhole 	5-26
 Separation of PGE Electrical Equipment from a Liquefied 	
Petroleum Gas Container	5-26

5 Clearances

5.1 Basic Requirements

The Customer must provide suitable space and provisions for mounting a meter socket at a location acceptable to PGE. It is in the mutual interest of the Customer and PGE to provide a location that is convenient to both parties for reading, testing, and replacing meters.

If, in the opinion of PGE, a Customer makes a meter inaccessible, such as by installing a fence or enclosure, the Customer must—at his or her own expense—provide access acceptable to PGE or move the meter socket to a location acceptable to PGE. If a meter is located behind a fence, refer to the requirements in Section 5.2.5.

Where the point of delivery is located inside the Customer's building, PGE will only install service connections to Customer's metering equipment at the main or entry floor level.

The Customer is responsible for obtaining base flood plain elevation requirements from the local jurisdiction, and ensuring that all Customer-owned switchgear and metering equipment is installed in accordance with these requirements.

PGE will not install a meter on a mobile structure, such as a trailer, barge, crane, dredge, dragline, or any mobile pumping equipment or on a floating dwelling unit, such as a houseboat.

5.2 Meter Clearances and Location Criteria

Meter clearances and location must meet all of the following criteria.

- The minimum unobstructed workspace required in front of a meter is 78-inches high, 48-inches wide, and 48-inches deep per PGE. See **Figure 5-1**.
- A meter installed in a cabinet requires a minimum space of 48-inches deep to open the cabinet door.
- Locate all meters and metering equipment at least 36 inches horizontally from a gas meter.
- In a single meter socket installation the center of the meter socket must be no higher than 72 inches, or lower than 42 inches, from the finished grade or floor immediately in front of the meter.
- In a gang meter base installation or switchgear installation the center of the uppermost meter socket must be no higher than 78 inches and the lowermost meter socket must be no lower than 36 inches. No more than five meters are allowed in a single vertical gang meter stack. See **Figure 8-2**.
- The Customer is responsible for providing a minimum 4-foot by 4-foot level workspace in front of all metering equipment.

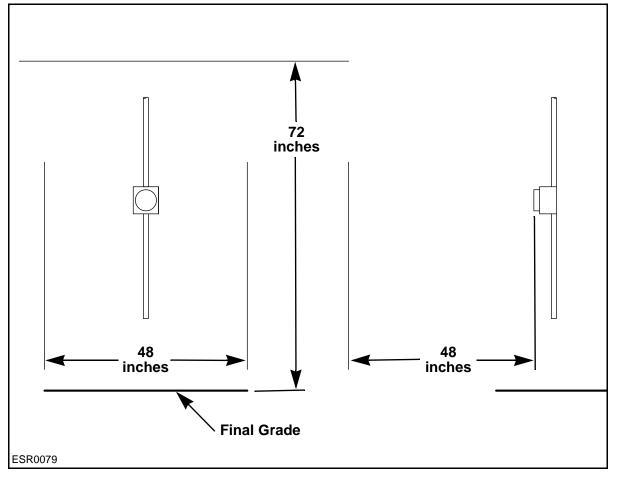


Figure 5-1: Minimum Unobstructed Workspace

5.2.1 Single-Meter, Flush- or Surface-Mount Installation

Follow these additional clearance requirements for a single-meter, flush- or surface-mount installation.

- The minimum horizontal clearance from the center of the meter to a wall or obstruction is 10 inches. See **Figure 5-2**.
- The minimum vertical clearance from the center of the meter to a ceiling or obstruction is 9 inches.

5.2.2 Single-Meter, Flush-Mount Installation

Follow these additional clearance requirements for a single-meter, flush-mount installation.

- A minimum 3/4-inch plywood backing is required.
- The building face must not extend beyond the face of the meter box. See **Figure 5-2**.

5.2.3 Single-Meter, Surface-Mount Installation

Follow this additional clearance requirement for a single-meter, surface-mount installation.

• A surface-mount meter must have a minimum of two 2- x 4-inch back supports. See **Figure 5-2**.

5.2.4 Multiple-Meter Installation

Follow these additional clearance requirements for a multiple-meter installation in a room or on adjacent walls.

- All doors to a room that contains PGE metering and termination equipment, 120-V or higher, must open out. These doors must be equipped with a panic bar before service will be provided.
- When the cabinet door on a piece of utility equipment is open, the door must not block the egress.
- The minimum horizontal clearance from the center of the meter to a wall or obstruction is 10 inches. See **Figure 5-3**.
- The minimum horizontal clearance from the side of a CT cabinet to a wall or obstructions is 30 inches. See **Figure 5-3**.
- The minimum horizontal clearance from the front of a CT cabinet to a wall or obstruction is 48 inches.
- A minimum 90-degree clear open space is required when the CT cabinet door is open. See **Figure 5-3**.
- When there are multiple meters on adjacent walls, a 16-inch minimum horizontal clearance is required from the side of the meter box to a wall or obstruction. See **Figure 5-3**.
- The minimum horizontal clearance from the open door of a CT cabinet to a wall or obstruction is 4 inches. See **Figure 5-3**.
- No more than five meters are allowed in a single vertical gang meter stack.

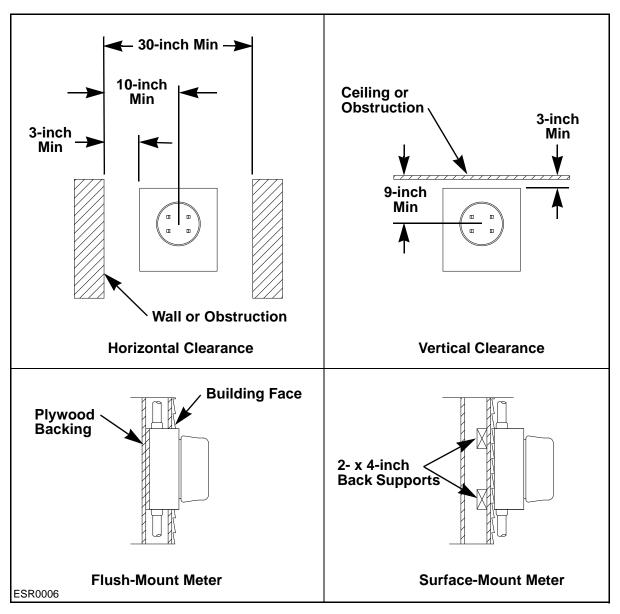


Figure 5-2: Meter Clearances for Single-Meter Installations

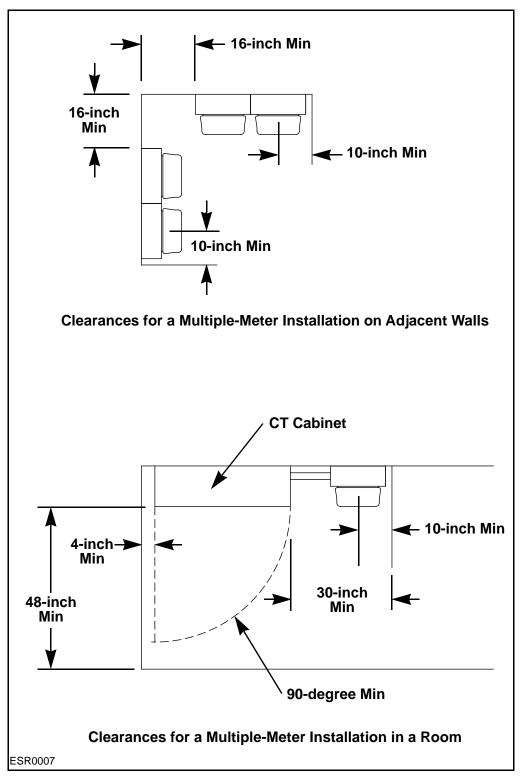


Figure 5-3: Meter Clearances for Multiple-Meter Installations

5.2.5 Residential Meter

Install a residential meter and CT cabinet outdoors at a location acceptable to PGE. As a general guideline, locate the meter on the side of the structure closest to the PGE line or within 10 feet of the front, or street side, to prevent a meter from being located behind a fence. Avoid installing a meter on an exterior bedroom or bathroom wall or patio, as well as exterior walls that are likely to be fenced in.

If a meter is located behind a fence, a gate must be installed on the same side of the house that the meter is on, or on the side of the house that will result in the shortest distance from the street to the meter.

Never install a meter over a window well, steps in a stairway, or other unsafe or inconvenient location. Keep shrubs and plants from obstructing access to metering equipment. See **Figure 5-4**.

Follow these clearance requirements for overhead service.

- See **Table 5-1** for clearances for service drops and drip loops.
- The meter socket and location must be approved by PGE prior to installation.
- Buildings should not be constructed under or adjacent to lines.
- The cable and drip loop must be at least 18 inches above an inaccessible roof as defined by the NESC.
- Locate the weatherhead a minimum of 24 inches above the roof and within 48 inches of the roof edge. See Section 7.3.2 for guying requirements.
- The maximum length of a service cable over the roof surface is 6 feet.
- The maximum distance between the meter base and the corner of the house closest to a PGE line is 10 feet.
- The minimum distance between a gas meter, window, or door and the meter is 36 inches, in order to maintain customer privacy. If the window does not have a view of living space, such as a garage window, the 36-inch distance is not required. This requirement applies to overhead and underground services.
- A minimum of 30 inches of clear workspace is required from the edge of a window well.
- The point of attachment for the cable must be a 3/8-inch eyebolt that is within 24 inches of the weatherhead. See **Figure 5-4**.

NOTE: A service drop installed on the gable side of a residence requires prior PGE approval. See **Figure 5-4**.

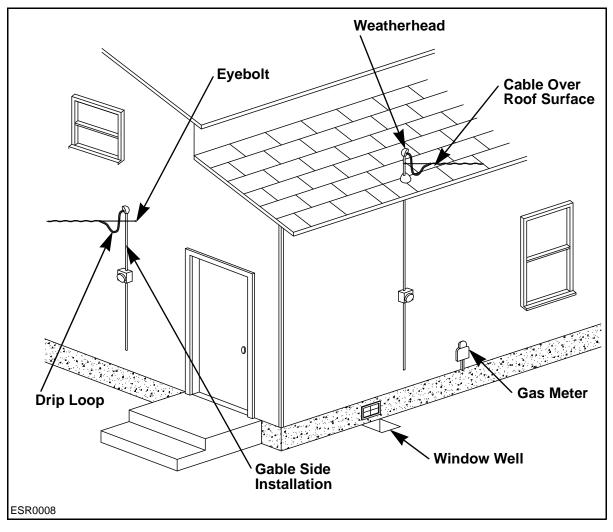


Figure 5-4: Residential Meter Clearances for Overhead Service

Minimum Clearances for Service Drops, 750 Volts and Lower Based on NESC C2- 2012				
Type of Clearance Type of Structure or Feature		Clearance (feet)		
	Over roads, streets, and other areas subject to truck traffic	17 ²		
Minimum service drop ¹ clearance;	Over alleys, parking lots, and driveways	16 ²		
NESC Table 232-1	Over land traveled by vehicles	16		
	Over state highways (ODOT may require greater clearances)	19		
Minimum clearances over spaces and	At height of attachment	14		
ways subject to pedestrians/restricted traffic only; NESC Table 232-1	Drip loops of service drops for 120/240, 208Y/ 120 volts, and 480Y/277 volts, NESC Table 232-1, note 8	10.5		
Minimum clearances from buildings for service drops not attached to the building; NESC Table 234-1	Vertical clearance over or under balconies and roofs accessible to pedestrians; see note below	11		
	Vertical clearance over or under balconies and roofs not accessible to pedestrians; see note below	3.5		
	Horizontal clearance to walls, projections, win- dows, balconies, and areas accessible to pedestrians; see note below	5		
	Radio and television antennas not accessible to pedestrians	3		
Minimum clearances from service drops, including drip loops, attached to a building or other installation over or along the installation to which they are attached; NESC rule 234C-3 and Figure 234-2	From the highest point of roofs, decks, or balco- nies over which they pass if not readily accessi- ble; see note below	10		
	From the highest point of roofs, decks, or balco- nies over which they pass above a not-readily- accessible roof and terminating at a (through- the-roof) service conduit or approved support, the service and its drip loops set not less than 18 inches above the roof; not more than 6 feet of the service cable over the roof located not more than 4 feet from the edge of the roof	1.5		
	From the highest point of roofs, decks, or balco- nies over which they pass in any direction from doors, windows ³ (except from above), porches, or fire escapes	3		

1. Service drop is defined as a multiplex insulated conductor cabled on and supported by a bare neutral messenger (TX/QX).

- 2. The PGE recommended clearance is based on meeting clearances over the life of the installation.
- 3. This rule only applies to windows designed to open.

Table 5-1: Minimum Clearances for Service Drops, 750 Volts and Lower Based on NESC C2-2012

NOTE: The NESC considers a roof, balcony, or area to be readily accessible to pedestrians if it can be casually accessed using a doorway, ramp, window, stairway, or permanently mounted ladder by a person on foot who neither exerts extraordinary physical effort nor employs special tools or devices to gain entry. The NESC does not consider a permanently mounted ladder as a means of access if the bottom rung is eight feet or more above the ground or other permanently installed accessible surface.

5.2.6 Nonresidential Meter

Locate a nonresidential meter and CT cabinet outdoors unless PGE confirms—prior to installation—that no acceptable outdoor location exists. Any indoor location must have prior written approval by PGE. PGE requires access to all meter locations during the hours of 8:00 a.m. to 4:30 p.m.

Do not locate an indoor meter in a show window, closet, bathroom, over a sink or laundry tub, or in any location not safe, convenient, or readily accessible.

5.3 PGE Electrical Equipment Room

The electrical room must be located on an outside wall with a door leading directly to the outside.

A room is not considered accessible unless the access door is keyed for a PGE lock, a key pad is installed, or equipped with a PGE-provided lockbox that contains a key to the door of each meter room. Doors to a meter or electrical equipment room must open outward and be equipped with a panic bar before service will be provided. The door must be a minimum of 36-inches wide and 78-inches high.

A room that contains PGE electrical equipment must be illuminated and accessible to PGE personnel. A meter or electrical equipment room must contain only PGE, telecommunications, and security and fire alarm systems. At a minimum, the room must have drywalls that are taped.

Whenever a service equipment change—such as a new service or rewire—is made to an existing electrical or meter room, the room must be retrofitted and/ or brought up to the requirements specified in the *Electrical Room Checklist* and in this section.

IMPORTANT: An electrical equipment room must **not** be used for storage.

5.3.1 Electrical Equipment Room Space Requirements

Follow these workspace and entrance-to-workspace requirements for a PGE electrical equipment room when there is one enclosure in a room, or two enclosures in a room.

NOTE: When there are two enclosures in a room, it is assumed that there are exposed live parts on both sides of the workspace.

5.3.1.1 Workspace

- The width of the workspace in front of electrical equipment must be 48 inches.
- No obstructions are permitted in the workspace.
- In all cases, the workspace must permit at least a 90degree opening of equipment doors or hinged panels.
- When normally enclosed live parts are exposed for inspection or servicing, the workspace—if in a passageway or general open space—must be suitably guarded.

5.3.1.2 Workspace When There Is One Enclosure

A minimum of 48 inches is required between the front of the enclosure and a wall or obstruction when equipment in the enclosure is 151 to 600 volts to ground. See **Figure 5-5**.

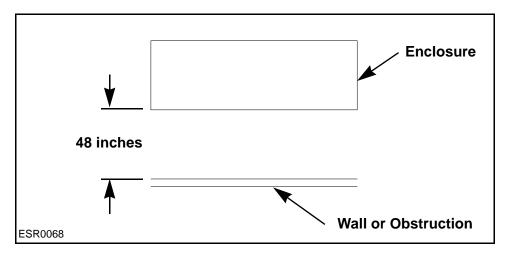


Figure 5-5: Workspace When There Is One Enclosure

- A minimum of 48 inches is required between the front of the enclosure and the closest doorway opening when the equipment in the enclosure is 151 to 600 volts to ground. See **Figure 5-6**.
- A minimum of 96 inches is required between the front of the enclosure and a wall or obstruction when the equipment in the enclosure is 151 to 600 volts to ground. See **Figure 5-6**.

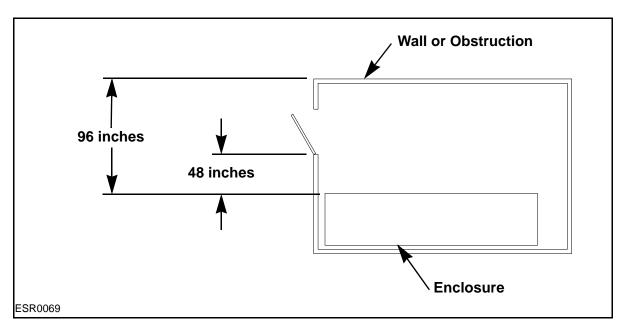


Figure 5-6: Workspace When There Is One Enclosure and One Doorway

5.3.1.3 Workspace When There Are Two Enclosures

A minimum of 48 inches is required between enclosures when the equipment in the enclosures is 151 to 600 volts to ground. See **Figure 5-7**.

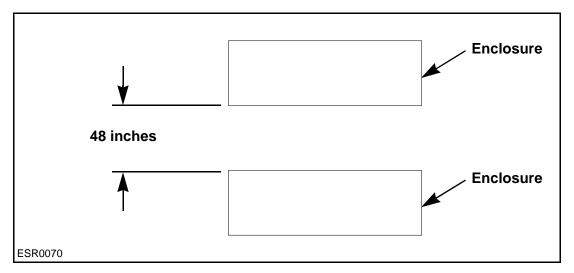


Figure 5-7: Workspace When There Are Two Enclosures

5.3.1.4 Workspace When There Are Two Enclosures and Two Doorways

- A minimum of 48 inches is required between enclosures when the equipment in the enclosures is 151 to 600 volts to ground. See **Figure 5-8**.
- A minimum of 36 inches is required for the doorway width.

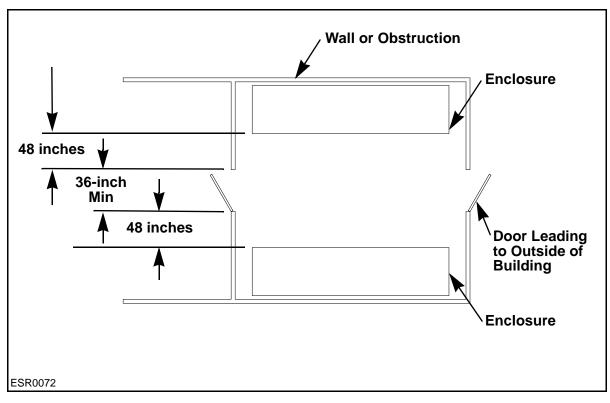


Figure 5-8: Workspace When There Are Two Enclosures and Two Doorways

5.3.1.5 Entrance to Workspace

- At least one entrance of sufficient size—and with a continuous and unobstructed exit—is required to provide access to workspace around the electrical equipment.
- For equipment rated 1200 amps or more that contains overcurrent devices, switching devices, or control devices, there must be one entrance to the required workspace not less than 36-inches wide and 78-inches high at each end of the workspace. Where the entrance has a personnel door(s), the door(s) must open in the direction of egress and be equipped with panic bars, pressure plates, or other devices that are normally latched but open under simple pressure.
- Where the depth of the workspace is twice that required by NEC Table 110-26(A)(1), a single entrance must be permitted. It must be located so that the distance from the nearest edge of the entrance is not less than the minimum clear distance specified in Table 110.26(A)(1) for equipment operating at that voltage and in that condition.

Electrical Room Checklist				
Ro	om Location and Access Door			
	The electrical room must be on an outside wall.			
	The door must open to the outside of the building.			
	The door must have a key pad installed or be keyed for a PGE lock, or a door key must be provided and stored in a PGE-approved lockbox. Refer to Section 5.3.			
	The door must be installed, open outward, and be equipped with a panic bar prior to receiving electric service. Refer to Section 5.3.			
	The door must be a minimum 36-inches wide by 78-inches high. Refer to Section 5.3.			
	36 inches of clear space in front, back, and to the sides of the access door.			
Wo	rkspace			
	48 inches of clear space in front of electrical cabinets with door. Doors must not block egress.			
	Minimum 78-inches high by 48-inches wide by 48-inches deep workspace in front of meter equipment per PGE. See Section 5.3.1.			
Sto	rage			
	The electrical room must not be used for storage.			
Ele	ctrical Panels, Switchgear, and CT Cabinets			
	Review by PGE engineer, Service and Design Project Manager, and/or Meter Services.			
Miscellaneous				
	The electrical room must be illuminated. Refer to Section 5.3.			
	At a minimum, the walls must be finished with dry wall and taped. Refer to Section 5.3.			
	Ensure that the switchgear and metering equipment are installed per the flood- plain requirements of the local jurisdictions, if applicable. Refer to Section 5.1.			

5

5.4 Clearances from Pools and Spas

5.4.1 Overhead Clearances to a Pool and Diving Structure

The clearance in any direction from the water level, edge of pool, base of diving platform, or anchored raft must not be less than 23 feet from TX, QX, or open supply lines. The clearance in any direction to a diving platform must not be less than 15 feet from TX, QX, or open supply lines.

5.4.2 Underground Clearances

Underground conductors must not be under or horizontally within 5 feet of the inside wall of an in-ground pool. For trench depth, cover, and conduit requirements see Section 6.

5.5 Clearance from an Underground Fuel Storage Tank

Underground service conduits must have a minimum of 10 feet of separation between the conduit run and the nearest point to a buried fuel storage of any construction including metal or fiberglass.

5.6 Oil-Filled Transformer Separation from a Structure

Oil-filled electrical equipment must be located a certain distance from a combustible structure in order to be in compliance with local requirements and national codes. The amount of separation depends on the flammability of both the insulating fluid and the nearby structure. Reductions in the minimum separation distance can be achieved through the use of a less-flammable dielectric fluid and/or fire barrier.

5.6.1 Combustibility of Building Material

The combustibility of a building is evaluated in two ways. It can apply to the building structure, or to the finish surface material applied to the inside or outside in combination with the structure. There are two types of noncombustible material:

- a material in which no part will ignite and burn when subjected to fire;
- a material having a structural base of noncombustible material as defined above, with a surfacing material not over 1/8-inch thick that has a flame-spread rating of 50 or less.

The definitions above are from NFPA 1: Fire Code.

Only buildings whose structural members are steel (with fire coatings approved by local fire authorities), brick, or concrete with an outside surface having a flame-spread rating of 50 or less can be considered noncombustible. All other designs require increased clearances between the structure and the oil-filled unit. NOTE: The installation of metal, brick, or stone siding on a wall constructed of wood studs does not meet the definition of a noncombustible structure.

5.6.2 Location of a Mineral-Oil-Filled Transformer Next to a Building

Locate a mineral-oil-filled transformer away from a building wherever possible. When it is not possible to locate a mineral-oil-filled transformer away from a building, the minimum separation distances shown in **Figure 5-9** and listed in **Table 5-2** must be applied. The separation values provided in **Table 5-2** apply to both pad-mounted and submersible transformers.

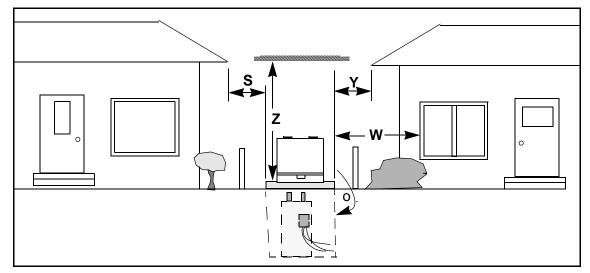


Figure 5-9: Minimum Separation of a Mineral-Oil-Filled Transformer from a Building

Minimum Separation of a Mineral-Oil-Filled Transformer from a Building				
Mineral Oil Capacity (gallon)	Noncombustible Structure ¹ (S in feet)	Combustible Structure ² (Y in feet)	To Any Opening in Structure ³ (W in feet)	Vertical Distance ⁴ (Z in feet)
0 to 499	3	8	8	25
500 to 5000	25	50	50	50
5001 plus	50	100	100	100

1. Separation to the nearest component if the structure is noncombustible and there are no openings closer than 8 feet.

- 2. Separation to the nearest component (wall or overhang) if the structure is combustible.
- 3. Opening in structure does not include windows that are not designed to be opened.
- 4. Separation measured from the top of the pad to any barrier which is not a living space or workspace.

Table 5-2: Minimum Separation of a Mineral-Oil-Filled Transformer from a Building

5.7 Separation of PGE Mineral-Oil-Filled Equipment from Other Oil-Filled Equipment

Locate a mineral-oil-filled transformer away from other oil-filled equipment, such as electrical equipment and fuel storage tanks, wherever possible. Where it is not possible to locate a mineral-oil-filled transformer away from oilfilled equipment, the minimum separation distances listed in **Table 5-3** must be applied. The separation values in **Table 5-3** apply to both pad-mounted and submersible transformers.

Minimum Separation of a Mineral-Oil-Filled Transformer from Other Oil-Filled Equipment ¹		
Mineral Oil/Fluid Capacity of Either Container (gallon)	Horizontal Distance (feet)	
0 to 499	5	
500 to 5000	25	
5001 plus	50	

1. Source is FM Global Property Loss Prevention Data Sheet 5-4

 Table 5-3: Minimum Separation of a Mineral-Oil-Filled Transformer from Other Oil

 Filled Equipment

5.8 Location of a Less-Flammable Oil-Filled Transformer Next to a Building and Other Oil-Filled Equipment

Where adequate separation between a mineral-oil-filled transformer and a combustible structure or other oil-filled equipment are not attainable per **Table 5-2** and **Table 5-3**, a transformer filled with high-flash-point fluid may be installed. High-flash-point fluid is an integral component of a less-flammable-rated transformer per FM Global. A less-flammable-rated transformer may be installed with reduced separations to structures or other oil-filled equipment. Use the values shown in **Table 5-4** for a less-flammable-rated transformer located near a building. Use the values shown in **Table 5-5** for a less-flammable-rated transformer located near other oil-filled equipment.

Minimum Separation of a Less-Flammable-Rated Transformer from a Building ¹				
Capacity Structure ² Structure ³ in		To Any Opening in Structure ⁴ (W in feet)	Vertical Distance ⁵ (Z in feet)	
All sizes	3	3	8	20

1. Source is FM Global Property Loss Prevention Data Sheet 5-4

2. Separation to the nearest component if the structure is noncombustible and there are no openings closer than 8 feet

3. Separation to the nearest component (wall or overhang) if the structure is combustible

- 4. Opening in structure does not include windows that are not designed to be opened
- 5. Separation measured from the top of the cabinet to any barrier that is not a living space or workspace. This separation is for working clearances only.

Table 5-4: Minimum Separation of a Less-Flammable-Rated Transformer from aBuilding

Minimum Separation of a Less-Flammable-Rated Transformer from Other Oil-Filled Equipment ¹		
Mineral Oil/Fluid Capacity of Either Container (gallon)	Horizontal Distance (feet)	
All sizes	3	

 Source is FM Global Property Loss Prevention Data Sheet 5-4. Other oil-filled equipment must contain similarly rated less-flammable fluids for the reduction in separation to apply; otherwise the distances in **Table 5-3** must apply.

Table 5-5: Minimum Separation of a Less-Flammable-Rated Transformer from OtherOil-Filled Equipment

5.9 Working Clearances Around Pad-Mounted Electrical Equipment

Working clearance is required around electrical equipment for PGE line crew work. The minimum amount of clear space may vary on any side of pad-mounted or submersible electrical equipment. The clear space required in

front of doors or access panels is greater than the clear space on a nonopening side of an enclosure.

The working clearance requirements impose a clearance to any structure, such as a wall or a fire barrier, constructed close to the oil-filled equipment to reduce the separation distance from a combustible building. The clearance also applies to shrubs and trees.

The following working clearance requirements apply to all pad-mounted electrical equipment:

- Ten feet of horizontal separation is required in front of, and extending parallel to the front of the enclosure, any electrical equipment side that has a door or access panel.
- Three feet of horizontal separation is required on any nonopening side of electrical equipment.
- Twenty feet of vertical separation is required above the electrical equipment.

See **Figure 5-10** for an illustration of the required separation for pad-mounted electrical equipment adjacent to a noncombustible structure. See **Figure 5-11** for an illustration of the required separation for pad-mounted electrical equipment adjacent to a combustible structure.

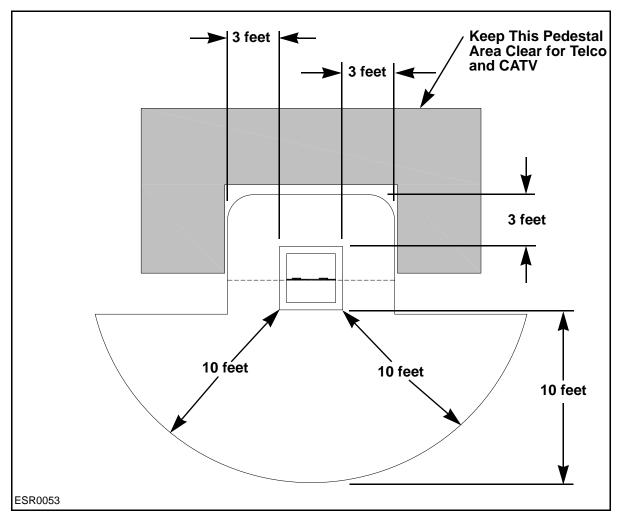


Figure 5-10: Working Clearances Around Pad-Mounted Electrical Equipment Adjacent to a Noncombustible Structure

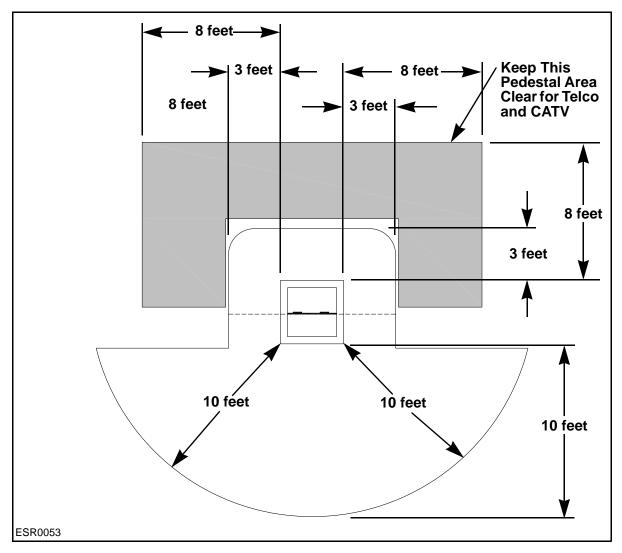


Figure 5-11: Working Clearances Around Pad-Mounted Electrical Equipment Adjacent to a Combustible Structure

5.10 Working Clearances Around PGE Submersible Equipment

The following working clearance requirements apply to all submersible electrical equipment:

• Eight feet of horizontal separation is required in front of and on the sides of the enclosure lid.

NOTE: The front of an enclosure lid is the side opposite the lid hinges.

- Three feet of horizontal separation is required behind the enclosure lid.
- Twenty feet of vertical separation is required above the electrical equipment.

See **Figure 5-12** for the separation requirements for submersible electrical equipment.

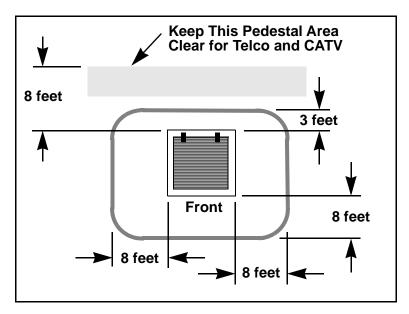


Figure 5-12: Working Clearances Around PGE Submersible Equipment

5.11 Separation of Electrical Equipment and Meter from a Gas Meter Set

Follow the separation requirements between electrical equipment and a meter and a gas meter set as shown in **Figure 5-13** and **Figure 5-14**.

• The minimum distance between a gas meter, gas meter regulator, or gas meter flange and a meter is 3 feet.

The design of the gas meter set varies.

- The regulator will not always be the farthest component in the gas meter set.
- The customer gas line may extend beyond the last component.
- The nearest gas component could be an outlet elbow or flange.
- The length of the gas meter set—dimension X—varies with the number of meters and associated equipment.

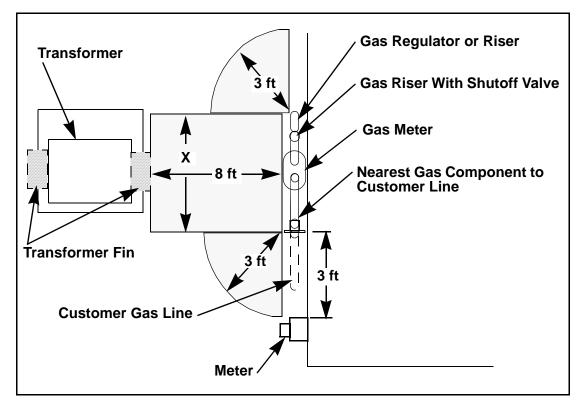


Figure 5-13: Separation of Electrical Equipment and a Meter from a Gas Meter Set

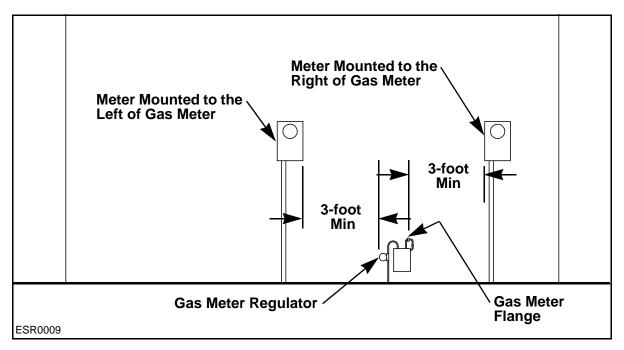


Figure 5-14: Separation of a Meter from a Gas Meter Regulator and Gas Meter Flange

5.12 PGE Secondary Voltage Pedestal and Handhole

A PGE pedestal and handhole must have three feet of horizontal separation from the gas meter set. Since these installations do not have switches inside the pedestal or handhole—and therefore are not a concern of the gas company—this separation is a PGE requirement for workspace only.

5.13 Separation of PGE Electrical Equipment from a Liquefied Petroleum Gas Container

Electrical equipment, such as a transformer, switch, vault, and pedestal, are considered to be a source of ignition and must be separated from a liquefied petroleum (LP) gas container. LP gas is also known as propane or butane.

The separation distance for an LP gas container is defined as the distance from either the pressure-relief valve on any portable container, or from the filling connection(s) or vent valve(s) for a container filled on site from a bulk truck to the electrical equipment. See **Figure 5-15**.

The separation distances listed in **Table 5-6** must be applied to installation of electrical equipment on customer property with an LP container.

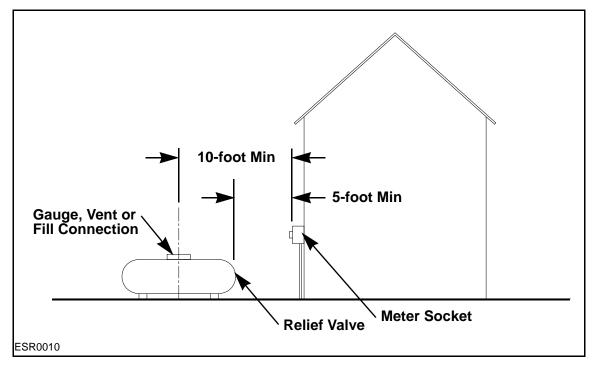


Figure 5-15: Minimum Distances from an Aboveground LP Storage Tank

Separation of Electrical Equipment from an LP Gas Container ¹					
			Minimum Separation from Electrical Equipment (feet) ⁴		
Container Type ²	Tank Location	Container Size ³	From Relief Valve of Container Not Filled on Site	From Fill Tubes or Relief/Vent Valves of Containers Filled on Site	
DOT ASME	Aboveground	All sizes	5	10	
ASME	Belowground	0 to 2000 2001 to 120,000	_	10 50	

1. National Fire Protection Association (NFPA) 58, Liquefied Petroleum Gas

2. Federal Department of Transportation (DOT) rating

3. Container sizes are rated in gallons-of-water capacity (WC) in the U.S. Customary System.

4. Separation distance is in any direction.

Table 5-6: Separation of Electrical Equipment from an LP Gas Container