

**Table 2-5
 PGF Operation Employment**

Possible Shift Schedules		
Schedule 1:	12 employees	6 a.m. to 6 p.m.
Two 12-hour shifts	2 employees	6 p.m. to 6 a.m.
Schedule 2:	12 employees	8 a.m. to 4 p.m.
Three 8-hour shifts	2 employees	4 p.m. to 12 midnight
	2 employees	12 a.m. to 8 a.m.
Category	Required Positions	
Plant Manager	1	
Administrative Assistant	1	
Safety and Environmental Coordinator	1	
Plant Engineer	1	
Shift Supervisor	5	
Unit Operator	5	
Water treatment operator	1	
Mechanic	3	
Instrument Technician	1	
Mechanical/Electrical Technician	1	
Total	20	

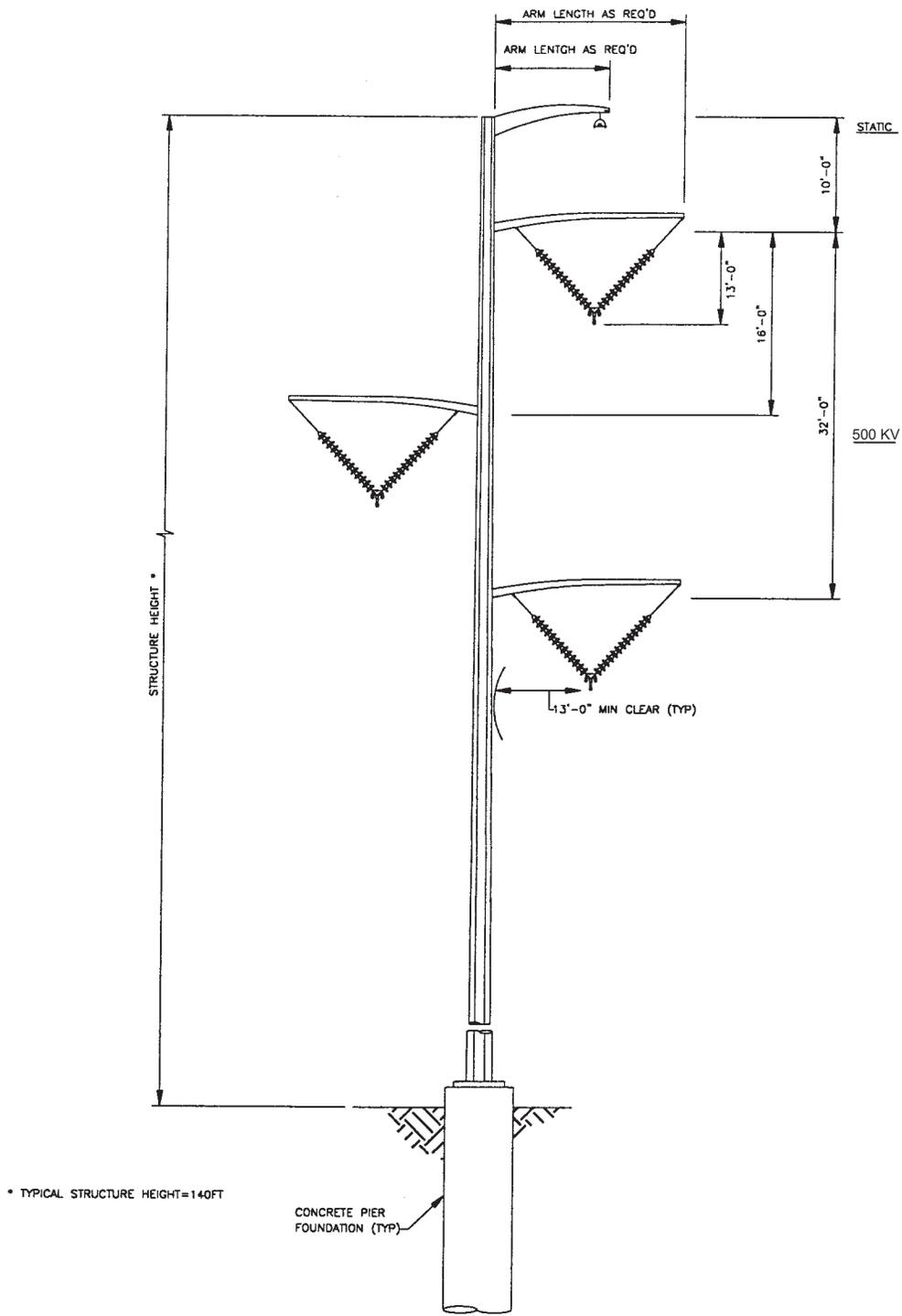
2.3 PROPOSED ACTION POWER TRANSMISSION

The project would interconnect with the proposed BPA McNary-John Day 500-kV transmission line. The line is located in the BPA transmission right-of-way corridor approximately 0.6 mile to the north of the plant site. Interconnection with this line would effectively interconnect the PGF to BPA's McNary Substation complex, which is located in Oregon adjacent to I-82 as it crosses the Columbia River. A formal Generation Interconnection Request and a request for firm transmission service have been filed with BPA.

The existing BPA transmission corridor currently includes two separate transmission lines. The southern line operates at 230 kV, and the northernmost operates at 230 or 345 kV, depending on energy flow requirements as managed by the BPA. The proposed McNary-John Day 500-kV line would be an additional transmission line constructed on the north side of the corridor immediately adjacent to the existing 230/345-kV line. This would place the existing 230/345-kV line in the middle of the corridor. Thus the proposed PGF interconnection would cross under both the existing lines to tie into the new 500-kV line.

2.3.1 TRANSMISSION INTERCONNECTION CONFIGURATION

The transmission interconnection would consist of four to six new transmission towers located between the PGF substation and the BPA transmission right-of-way corridor. The number and configuration of the towers would be determined during final design. The new towers would be mono-pole configuration, as shown in Figure 2-9. The towers would be approximately 100 to 140 feet tall, with the conductors spaced 12 to 16 feet apart.



Source: Black & Veatch

Figure 2-9
Proposed 500-kV Transmission Tower

Figure 2-9 Proposed 500-kV Transmission Tower (Continued)

2.3.2 TRANSMISSION INTERCONNECTION CONSTRUCTION

The new transmission interconnection would be constructed in a new easement that is adjacent to an existing agricultural disturbance. Access for construction of new towers would be via existing access roads developed for construction of the existing transmission line and used for periodic inspection and maintenance of that line. The existing access roads would be extended to the new tower locations to provide access for construction. A staging and equipment laydown area would also be used. These locations would be selected from sites that are accessible from existing roadways and are currently disturbed, or where disturbance can be minimized. Disturbances for staging and letdown areas would be restored following construction.

The construction sequence would include tower installation, stringing conductors and static wires, and site cleanup.

Tower Installation – Installation of the towers would include vegetation clearance of an area sufficient for pole installation. Holes would be dug with a backhoe, or power auger and a concrete foundation pier would be poured in place. In some cases, rock drills or blasting may be required to excavate a foundation hole to sufficient depth. Where drilling or blasting is required, unsuitable construction debris would be removed and backfilled with suitable material. The poles would be bolted to the foundation piers, steel cross-arm and insulators installed, and the towers prepared for conductor stringing.

- **Stringing Conductors/Static Wires** – Conductor stringing involves a sequence of running pilot lines through prepositioned pulleys located on each tower. A truck-mounted, spooled conductor is then positioned at the beginning of the segment to be strung. Take-up spools, also truck-mounted, are located at the end of the segment to be installed. Pilot lines are pulled through with tension maintained and the conductors follow and are left in position on the towers. Installation is completed by connecting the conductors to the individual insulators while adjusting the conductors sag between towers to predetermined dimensions. In some locations, static wires would also be installed for protection of the transmission line. The static wires would be installed in a manner similar to the conductors.

The tower installation and conductor stringing operation primarily involve the movement of wheeled vehicles along the new easement. Little disturbance other than excavation for the towers would occur.

- **Cleanup** – Following construction of the line, all residual construction debris would be removed and disturbed areas would be restored as required.

2.4 PROJECT ALTERNATIVES

In addition to the No Action Alternative and the Proposed Action, three other alternatives for specific components of the project were considered: (1) alternate 230-kV transmission interconnection, (2) alternate Benton PUD/BPA transmission interconnection, and (3) an access alternative, including an alternate construction access road and an alternate operation access road. These alternatives are described below.