

Appalachian Power Company Policy / Procedure No. 6: Load and Unload Poles

1) Statement of policy:

When loading and unloading poles, employees shall follow all applicable rules referenced in the safety manual with special emphasis on equipment limitations, load, and line of fire.

Use of larger class and longer poles in recent years requires additional diligence from those who handle poles. Generally, any pole longer or of a larger class than a 40 foot class 3 pole will exceed the lifting rating of digger derricks in some boom positions and configurations, therefore, additional attention must be paid to setup of the truck and boom angles and extension when handling these larger poles.

2) Discussion:

The following are general safe work practices that when adhered to, will minimize the chance of an injury while loading/unloading poles:

- Reference pole weight and derrick load chart before lifting poles.
- Prior to any movement of a pole from its resting place, employees shall remove themselves from all lines of fire between the pole pile and the loading or transporting equipment.
- Employees shall not stand or pass beneath suspended loads.
- Care shall be taken to position employees and equipment in such a way as to avoid injury or damages, should a load of poles get out of control.
- When poles are to be rolled from a pile or from a trailer to the ground, it shall be done with a line, cant hook, pole skids, and other approved tools.
- Stay behind and clear of rolling pole.
- Keep poles clear of roads and placed or blocked so they cannot roll.
- Always place and lock down standards before unbinding load.
- Always bind load when moving from one location to another.
- Always work from the end or the backside of a pole when loading or unloading.
- Hook poles as close to the balance point as possible and use a rope sling for control when loading on truck-mounted racks. The winch line shall be plumb before raising any pole to prevent excessive movement during and after the lift.
- Care must be exercised when using pole tongs due to the possibility of the tongs slipping and dropping the pole. Pole tongs shall not be used to load poles on truck-mounted racks. Only tongs rated for lifting (not skidding) are to be used to lift and move poles.

Extra precautions to be taken when lifting loads heavier than 1500 lbs. (a 40 foot, class 3 pole or larger) with a digger derrick:

- Discuss load handling in detail during a job briefing before the lift is attempted.
 - This discussion must include consulting weight charts or other references to determine the weight of the load.

- Use the load radius chart to determine the boom angle and extension needed.
- This discussion must include a review of the load chart on the digger derrick and a specific discussion of boom angle and extension configurations that will cause the boom to be overloaded or unstable.
- Wherever possible, the truck should be positioned where all lifting will be done with the truck boom rotated over the rear of the truck
- The truck must be set up in a position where the side-to-side bed angle is 5° or less.
- When reading load charts on the derrick, the permissible boom angle shall always be moved up to the value noted on the chart that exceeds the weight of the load. (i.e.: A crew is lifting a 2500 lb. Pole and will need to extend the third stage fully and the second stage partially to position the pole for the job. The load chart for the digger says that the truck will lift 1750 lbs. with the second and third stage extended and the boom at 0°, 2330 lbs. with the boom at 22° and 3000 lbs with the boom at 40°. The minimum boom angle is therefore 40°.)

3) Definitions:

Line of fire- A physical position that lies within the zone where a hazard will exist when stored energy is released.

4) Attachments:

Pole Weights from the Safety Manual Data Section D 2.03

SOUTHERN YELLOW PINE (0.6# CCA/9# Creosote/0.38# Penta- NOTE takes the heaviest weight as guideline)							
Length (ft.)	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7
30	1,224	1,068	924	798	696	606	516
35	1,572	1,368	1,182	1,026	888	768	666
40	1,956	1,692	1,470	1,272	1,104	954	
45	2,358	2,046	1,770	1,536	1,332		
50	3,029	2,696	2,275	1,976	1,710		
55	3,530	3,062	2,652	2,301			
60	4,069	3,523	3,055	2,646			
65	4,622	4,004	3,471	3,016			
70	5,207	4,518	3,913				
75	5,818	5,051	4,375				
80	6,455	5,597	4,849				
85	7,124	6,169	5,350				
90	7,807	6,760	5,863				

5) OSHA / Safety Manual References

Safety Manual:

G 3.12 - Poles placed on piles or racks shall be securely blocked to prevent rolling or shifting.

G 3.13 - Poles loaded on a truck or trailer shall be securely fastened in at least two places.

G 3.16 - Employees shall not remain on a pole pile while poles are being hoisted.

G 3.17 - When a load of poles is within working distance of the ground, install load binders so that they can and will be operated by employees while standing on the ground.

OSHA Regulations:

1926.953(a) - Prior to unloading steel, poles, cross arms and similar material, the load shall be thoroughly examined to ascertain if the load has shifted, binders or stakes have broken or the load is otherwise hazardous to employees.

1926.953(b)(2) - Precautions shall be exercised to prevent blocking of roadways or endangering other traffic.

1926.953(d) - Where hazards to employees exist, tag lines or other suitable devices shall be used to control loads being handled by hoisting equipment.

6) Date Adopted: March 7, 2006