WESTERN RED CEDAR POLE ASSOCIATION
THE WORLD'S FINEST UTILITY POLES

Cedar Pole NEWS

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Electronic Cedar Pole News

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Cedar Poles are Standard for Mission Valley Power

Western Red Cedar poles have been the standard for Mission Valley Power (MVP) for more than 20 years. Cedar poles now account for more than 25% of MVP's system which contains about 40,000 distribution poles.

Cedar's durability, long-life, climbability, weight and ease of handling were the reasons MVP moved to all cedar distribution poles in the 1980's.

All cedar poles are full length, penta treated.

A major project, the ongoing widening of U.S. Highway 93, between Evaro, MT and Polson, MT, has required the replacement of poles to near the right-of-way with Western Red Cedar being used.

Beginning this year, Mission Valley Power expects the project to be completed in another two to three years.

Western Red Cedar poles as tall as 75 feet are used for the Highway 93 line. Currently one of Montana's deadliest highways, the expansion will significantly improve safety.

The 114 mile portion of U.S. Highway 93 from Kalispell to Missoula is heavily traveled because of the area's ski resorts, Glacier National Park and Flathead Lake.

One of the first stages of the project is the relocation of existing power lines to allow for widening of the highway.

As each section of highway is prepared for widening a new line is constructed near the edge of the new right-of-way. The activation of each section moves swiftly with crews making the connection with the existing line simultaneously at each end so power outages are minimized.

Approximately 50 of the new cedar poles have been installed. The entire

New Cedar Poles Placed Along Montana Highway 93

The Jocko Line north of Arlee, MT uses 65 ft. and 70 ft. Class 1 cedar poles on a 69kV line that began installation in February for that portion of the U.S. Highway 93 widening project .

Near the Mission Valley Power office at Pablo, MT, 60 ft. Class 1 cedar poles carrying 69kV are being used for the U.S. Highway 93 widening.

project will require 475 poles with the majority of those being cedar.

Where State Highway 35 joins U.S. Highway 93, about a mile of new cedar poles were installed to make connection with a nearby substation.

Principal lengths and classes being used by Mission Valley throughout their system range from 30 ft. Class 5 to 75 ft. Class 1 poles. The distribution system is 12.5kV, 34kV and 69kV with three-phase lines at 7200/12470V.

New lines, such as those going in along Highways 93 and 35, are typically installed with raptor protection.

Mission Valley Power is owned by the Federal Government and managed by the Confederated Salish and Kootenai Tribes. The service area, providing power to the Flathead Indian Reservation and some adjacent areas, is slightly greater than 1.6 million acres.

Service extends from south of Arlee, MT in the south, north to Proctor, MT, and from Hot Springs, MT in the west, to Flathead Lake and the Mission Mountain Range summit, part of the Continental Divide, in the east.

Power comes from Pacific Power and Light and Bonneville Power Administration transmission lines, which transverse the service area. Some of this power is locally generated at the Kerr Dam hydro generation plant just west of Polson, MT.

Mission Valley conducts quality control inspections on a frequent schedule, beginning 20 years after installation, using the Wood Quality Control Program, as well as other inspection services.

Western Red Cedar poles provide outstanding performance in the extreme hot and cold climate of the Mission Valley Power service area located near a major Rocky Mountain range.

Here, new 70 ft. Class 1 cedar poles were installed along side the older lines on State Highway 35. This line stretches from a substation at Polson, MT to U.S. Highway 93, allowing for future widening of that roadway.

Sky Crane Single Stem Harvesting

Single Stem Harvesting is sometimes used in very rugged terrain, difficult to reach areas, or in sensitive areas such as flood plains along rivers, draws, creeks or swamps.

Western Red Cedar grows in these types of areas, and Single Stem Harvesting is very successfully used for cedar poles. This method of harvesting has been environmentally successful with no impact to the forest stand and no loss to forest, environmental or recreational values in the area.

The process begins with foresters locating and cruising areas selected for Single Stem Harvesting. An inventory is developed along with a full analysis, including values and volumes. Then field engineers locate, verify and layout areas for harvesting.

Teams of climber/cutters provide selections of the trees to be harvested and plot these on a map. The teams then prepare the selected trees for harvesting by climbing the trees, removing branches and topping each selected tree. The top of the tree is often painted for easy airborne identification by the helicopter crew.

The last step of the process is completed when two saw cuts are made at the base of the tree. Cuts are made from each side of the tree and extend to within 1/2" to 3/4" from the other cut, leaving the tree standing. The cuts are then shimmed.

Preparation to this point can be done well in advance of the actual logging by helicopter sky crane. An on-going standing inventory of selected trees is maintained as preparation progresses.

When actual harvesting begins, a sky crane crew drops a vertical grapple, operated remotely from the helicopter, ten to twenty feet below the topped part of the tree pole and tightens the line.

The helicopter then shakes the tree which snaps off at the stump by breaking the thin wood between the base cuts. The sky crane then lifts the tree up and out of the forest and places it on the closest nearby roadway.

Even in the most rugged ground there is little or no breakage. A 25% to 40% breakage rate occurs to poles harvested using traditional methods,

Ribvarian Environmental Management (REM Contracting) of Campbell River, B.C., manages the single stem harvesting process for Timber West Forest Corp. of Vancouver, B.C., in cooperation with Kanaka Creek Pole Co. Ltd. of Maple Ridge, B.C.

Above, this "Sky Crane" helicopter lifts a Western Red Cedar log from the forest and transports it to a nearby logging road. Light weight cedar poles are an ideal species for helicopter logging.

Below, cedar poles are loaded for transport out of the forest.

This helicopter with the grapple has a capacity to lift 18,000 lbs.

North American Wood Pole Council

Western Red Cedar Pole Association is a member of the North American Wood Pole Council, an independent council representing the producers and suppliers of wood poles and crossarms in North America. For information on sources of supply, pole supply, engineering and design information, case histories, environmental and wildlife information, product disposal, pole life and life cycle economics, advantages and wood preservative systems, visit their website at: www.woodpoles.org.

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2405-61st Ave. S.E., Mercer Island, Washington 98040
800-410-1917, 206-275-4753 Fax: 206-275-4755
E-mail: info@wrcpa.org

Mission Valley Power Pole Recycling

Like many utilities, Mission Valley Power recycles poles taken out of service.

Of the poles taken out of service, 95% are used by ranchers adjacent to the highway for reuse as pole buildings, corner posts and fill abutting.

All recipients of donated poles receive a Material Safety Data Sheet (MSDS).

The utility has also donated poles taken out of service to the Sheriff's department for their construction of a training certification facility.

Other organizations that have received poles include golf courses for poles holding up nets used on driving ranges, and schools for use as parking lot bumpers.

Ranchers in the Mission Valley Power service area reuse cedar poles taken out of service, such as these poles which are used for fence posts.

Did You Know?

▲ *Cedar's carrying capacity and flexibility allows poles to withstand extreme weight and severe weather conditions.*

▲ *Cedar's straight grain and uniform texture mean virtually no twisting after installation. This minimizes pole fracture caused by severe weather or mechanical damage.*

▲ *Because cedar weighs about 30% less than other species, it's easier to handle and install.*

▲ *Unlike other species, cedar's heartwood produces chemical compounds that naturally resist decay, fungi and insects.*

▲ *Preservative treatment extends cedar's inherent long service life to 80 years and more.*

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