


BANGLADESH RURAL ELECTRIFICATION BOARD

**PBS INSTRUCTION 100-54/
BREB INSTRUCTION 500-25**

**STANDARD FOR INSPECTION, EVALUATION
AND
TREATMENT OF STANDING WOOD POLES**


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**SUBJECT: STANDARD FOR INSPECTION, EVALUATION AND TREATMENT
OF STANDING WOOD POLES**

1.0 SCOPE

This standard establishes the inspection, defect detection, evaluation and preservative treatment of standing wood poles used by different Palli Bidyut Samity (PBS) of Bangladesh Rural Electrification Board (BREB). The purpose of this standard is to assure Safety, Continuity, and Economy. Safety to the linemen working on the lines and to the general public. Continuity of electrical service by reducing outages caused by premature pole failures. Economy of operation by increasing the service life of the poles. These goals are attained by controlling the rate of failures due to wood decay and insects and thereby increase the service life of the standing poles.

2.0 GENERAL

2.1 This standard consists of specifications and conditions for the inspection and ground line preservative treatment of distribution wood poles on the Rural Electrification System of different Palli Bidyut Samity (PBS).

2.2 The Contractor will be made aware of any modifications or changes to these specifications to meet any special conditions.

2.3 Definitions: Terms used in this specification shall be defined as follows:

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2.3.1 Anchor: A rod with expanding head connected to pole by a guy wire, usually installed at a 45° angle from standing pole, used as pole support.

2.3.2 Back fill: The dirt which is replaced around the pole after excavation, inspection and treatment have been completed.

2.3.3 Bandage: A covering around the treated area to prevent the preservative from being absorbed by the soil.

2.3.4 Bore: To examine a pole by the use of a brace and bit to determine its internal condition.

2.3.5 Branding: Permanent marking on a treated wood product to identify the supplier and date of treatment; other information may be included in a brand when so specified.

2.3.6 Check: A lengthwise separation of the wood that usually extends across the rings of annual growth and commonly results from stresses set up in wood during seasoning.

2.3.7 The Pole Inspection Company: Pole Inspection Company, who will conduct inspection, evaluation and preservative treatment of standing wood poles.

2.3.8 Country Location: An area in which there are very few houses, and where there is little possibility of children or animals coming the contact with the treated poles.

2.3.9 Crew: One or more men who are working as a unit.

2.3.10 Cross Section: A cut or view of a pole that is made at right angles to the longitudinal axis of the pole.

2.3.11 Danger Poles: Any pole that is considered to need immediate attention by the utility.

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All danger poles are reported by phone to the utility and should be replaced within 48 hours. No lineman shall be allowed to climb or work on these poles unless they are properly braced and supported.

2.3.12 (a) Decay: Decomposition of wood substance by wood-destroying fungi. Two stages of decay are ordinarily recognized: The incipient and advanced stages. Syn: rot, doze, doze.

(b) **Decay, Advanced:** A stage of decay in which the wood has become definitely changed in appearance, character, composition, hardness, and specific gravity.

(c) **Decay, Incipient:** An early stage of decay in which the wood may show discoloration and/or early signs of fiber deterioration. Some of its properties may have deteriorated appreciably.

2.3.13 Decay Pocket: A decay pocket is any decay area, internal or exposed, which as a pocket-like form.

2.3.14 Distribution: Pole lines carrying equipment for service to individual electric customers, usually of lower voltage.

2.3.15 Ground line: The line around a pole to which the soil comes.

2.3.16 Ground line Area: That area from 12 inches or 30 cm above ground line to 24 inches or 60 cm below ground line.

2.3.17 G.L. Treat Tag: A metal tag, placed on a pole as high as possible above the treatment to indicate that the pole has been treated. The tag contains the date of treatment (year), the type or name of the preservative, the symbol or name of the company doing the treatment.

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2.3.18 Guy Stub: A shorter pole across road to take strain from pole with wires, a messenger connects from top of a guy stub to standing pole. A guy stub usually also has a down guy going from the point of attachment of the overhead guy to an anchor in the ground.

2.3.19 Guy Wire: A wire cable, attached either to a guy stub or to an anchor, used to support a pole.

2.3.20 Half Treat: When a pole is treated, but to less than the full required depth, it is known as a half treat.

2.3.21 "H" Frame: Two poles installed at right angles to the line, 12-16 feet (3.6-4.8 m) apart, with cross arms and braces designed to support transmission wires.

2.3.22 Heart Rot: The decay of the center of a pole.

2.3.23 Hook: The shell indicator, the instrument used to determine the amount of good wood remaining in the shell, is referred to as a hook or a shell thickness indicator.

2.3.24 Inspection: The checking of a pole for decay or defects by sounding, boring, visual observation and other inspection techniques.

2.3.25 Line: Any complete set of poles which provides a service between two points.

2.3.26 Load: The total number of wires, transformer's, etc. which are supported by a pole and configuration of the attachment on the pole i.e. whether a pole is an angle pole.

2.3.27 Partial Treat: A pole treated only part of the way around the circumference.

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2.3.28 Plug: A 3/8" inch or 0.95 cm treated dowel used to plug the hole after boring.

2.3.29 Pole Class: The class of the pole is determined by measuring the circumference of the pole at the top and at the ground line.

2.3.30 Pre-Inspection: The checking of a line prior to treatment to determine the number of poles to be treated, their condition, and the distance between them.

2.3.31 Procedure: The basic steps of inspection and treatment as set up in this spec. Procedure may not be changed without authorization by the supervisor and the customer's monitor.

2.3.32 Production: The number of poles inspected and treated per day.

2.3.33 Push Brace: A pole set at an angle to standing pole, where anchors or guy stub cannot be installed.

2.3.34 Quality Control: A continuing function of the wood preserver to assure that the timber product and its treatment are of high quality and meet the customer's specifications. A quality control man cooperates with, and assures that the final product is acceptable to the customer's inspector.

2.3.35 Reject: Any pole which is considered unfit for treatment due to decay, shell rot, top, etc. Rejected poles should be promptly replaced.

2.3.36 Reject Tag: A square tag placed at an angle on a pole at eye level, to indicate the pole

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