

Replacement Criteria of Concrete Poles

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Concrete poles for electric railways are load-supporting members which support overhead contact lines and its fittings, etc., and the required strength of them is determined in consideration of the load according to its service condition. For the judgement of necessity of its replacement due to its deterioration at the time of the maintenance work, it is important to know whether it has the required strength. Since concrete poles started to be used as electric-railway poles on a full scale, 50 years or more have passed. Therefore, the grounds and standards are desired for their planned replacement according to the deterioration conditions of poles. In this paper, we clarified the main deterioration processes of concrete poles from the result of the field survey on commercial lines, and the bending and the material tests of disused poles. And, we proposed a replacement judging flow of the poles.