The Process of Performance Appraisal aims at obtaining, analyzing and recording information about the relative worth of an employee. Its aim is to measure what an employee does both quantitatively and qualitatively. The Kenya Power and Lighting Company is charged with responsibility of ensuring adequate line capacity to maintain supply of electricity across the country. KPLC continues to enhance technical and non technical functions. The objective of this study is to establish performance appraisal variables and how they are measured, assess the performance appraisal process and establish how the appraisal results are communicated to the employee in KPLC. The researcher has reviewed the process and purpose of performance appraisal, appraisal tools, setting of targets, employee preparedness, importance of continuous performance appraisal and appraisal feedback. The target group for this study will be senior managers, middle level managers, supervisors and support staff of the Kenya Power & Lighting Company (KPLC). KPLC has about 1,726 employees throughout the country. This research will target those at the head office only totaling 450. The researcher will adopt stratified random sampling and will sample 10% of the target population. Data will be collected by administration of questionnaires and will be analyzed by frequency distribution and chi square. Statistical package for social sciences will be used to analyze data. The data will be presented by use of statistical tables, frequencies, pie charts, graphs and percentages. Conclusion and recommendations will be made based on the research findings. The researcher anticipates that KPLC will benefit from the results of this study.