



Construction Of Multiple Defered State [Mds(0,2)] Plans Through Gert Analysis

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Abstract

This paper deals with the designing of MDS(0,2) plan using Graphical Evaluation Review Technique(GERT) approach. Rambert Vaerst(1981) introduced the concept of Multiple Deferred State Sampling plans in which the acceptance or rejection of a lot is based not only on the results from the current lot but also on sample results of past or future lots. Recently Shankar developed Multiple Deferred sampling through GERT approach. The GERT analysis has mainly two advantages. First this procedure gives the visual picture of the inspection system and second, it offers through characterization of plan. Also we can give the formula for Operating Characteristic function and Average Sampling number(ASN)

Keywords: Multiple Deferred Sampling State, MDS, GERT, Operating characteristic function (OC), Average Sampling Number(ASN)

Introduction

The concept of multiple deferred state sampling (MDS) was introduced by Wortham and Baker (1976). the MDS sampling plan belongs to the group of conditional sampling procedures. In these procedures acceptance or rejection of a lot is based not only on the sample from that lot, but also the sample results from past lots (in the case of dependent state sampling) or from future lots (in the case of deferred state sampling) the MDS plan is applicable in the case of Type B situations (i.e., sampling from a continuous process) where lots are submitted for inspection serially in order of

production. The operating procedure and characteristics of the attributes MDS sampling plan can be found in Wortham and Baker (1976) and this plan was studied further by Vaseer (1982), Soundarajan and Vijayaraghavan (1990)

For situations involving costly or destructive testing by attributes, it is usual practice to use Single Sampling Plan with smaller sample size and an acceptance number zero to have the decision either to accept or reject the lot. The smaller sample size is dictated with the cost of test and zero acceptance number arises out of desire to maintain a steeper OC curve. Wortham and Baker developed multiple dependent and multiple deferred state sampling plans. These plans are designed as MDS (r,b). The operating of these is restricted in these situations in which

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