

sites or for some dosage forms; It could be too low or high (4). Thus, it may be impractical to establish a uniform system of AQLs and/or UQLs for package defects. The uses of AQL and/or UQLs and their ranges are examples of statistically derived levels for acceptance or rejection. The basic requirements are that the acceptance criteria for sampling, testing and for acceptance levels be based on appropriate statistical quality control criteria. Sound statistical methodology should be applied to the procedures for testing of attributes that impact on the quality of drug products and the evaluation of the results to determine acceptance or rejection of the drug product lot.

An important aspect of AQLs and UQLs is the continuous learning and possible adjustments of defect descriptions and levels. Failure to meet established defect limits is investigated to determine the impact on validation. As events and history of the packaged product and process are gained, changes may be warranted. Re-evaluation of the attribute description (e.g. quantitative measurements enhanced or more specific description of the defect) and acceptability by the Quality Unit of that defect and corresponding acceptance criteria may be beneficial. Trending, quality incidents and investigations and statistical treatment of inspection data are a means to review the defects. Quality risk management tools may also be used to provide a basis for evaluating the potential impact of package defects.

Definitions of classifications:

Common defect classification criteria for critical, major and minor and its impact on the safety, regulations, use, consumer relations and company are shown in Appendix I.

Sampling Plans:

Typical sampling plans that can be used are General Inspection Level II (ANSI/ASQC Z1.4-1993), with Single, Normal Sampling Plan or ISO 2859-4 (10). Other sampling plans may be appropriate depending on administrative difficulty of the ensuing sample size, desired or given AQL, sample size of the available plan, packaging history and routine monitoring intentions.

Sample size of multiple plans is less than double sampling plans, which in turn is less than the single sample plans. Once determined, the total sample size is divided by the number of sampling intervals to determine the number of samples per interval (e.g. 200 bottles (sample size) /24 intervals = 9 bottles/interval).

Appendix I: [Defect Classification Criteria](#)