

§ 42.105

7 CFR Ch. I (1-1-01 Edition)

and classifies defects of the label, marking, or code.

[31 FR 4687, Mar. 19, 1966, as amended at 36 FR 18456, Sept. 15, 1971. Redesignated at 42 FR 32514, June 27, 1977 and 46 FR 63203, Dec. 31, 1981]

§ 42.105 Basis for selection of sample.

(a) *Identification of lot.* Selection of proper samples requires sufficient information to identify the lot; such information includes, but is not limited to:

- (1) The lot size (see § 42.103 for restriction on small lots);
- (2) The type and size of container;
- (3) The code marks or other identification marks and the number of containers represented by each mark.
- (4) The history of the lot regarding previous inspections; and
- (5) The inspection status (normal, tightened, or reduced).

(b) *Preliminary scanning.* Prior to drawing the sample, the lot should be scanned to determine if any segments or portions are abnormal with respect to wet cases, blown cans, top layer rust, leaking bags, etc. If such segments or portions noted are of any consequence, the lot may be rejected for condition of containers without sampling.

(c) *Sample size.* Determination of the number of containers to check for condition:

(1) Refer to the table in §§ 42.109 through 42.111 (sampling plans) and find where the lot size (number of individual containers) fits into the column headed "Lot Size Ranges."

(i) Tables I-A (normal), II-A (tightened), or III-A (reduced), as applicable, will apply to origin inspections, unless the contractor requests that corresponding single sampling plans be used.

(ii) The appropriate double sampling plans in Table I will apply to other than origin inspections, unless the contractor requests that corresponding single sampling plans be used.

(2) Select the appropriate sample size for the corresponding lot size range as indicated in the appropriate column headed "Sample Size."

(3) Lots rejected for unsatisfactory condition of containers may be subsequently sampled after being recondi-

tioned or reworked. Such lots or resulting portion of a lot may be sampled as a reoffered lot providing the reoffered portion is separately identifiable. When making such inspections, the appropriate sampling plan for tightened inspection shall be used. Except in the case of an appeal inspection, it is not permissible to reinspect a previously rejected lot until it has been reconditioned or reworked.

(d) *Sample selection.* Select samples from the lot presented in accordance with either of the following two procedures as may be applicable. (A lot offered for inspection will be accepted or rejected in its entirety with either sampling procedure used to select the sample.)

(1) *Proportional random sampling.* When the number of codes or other identifying marks within the lot and the approximate number of cases or containers per code are known, select sample units at random within each mark and in a number proportionate to the number of containers represented by such mark.

(2) *Simple random sampling.* When there are no code or other identifying marks, or when the number of codes or identifying marks within the lot and/or approximate number of cases or containers per mark are not known, select sample units at random from the entire lot.

(e) *Maximum sample units per case.* If the lot is cased, predetermine the number of containers to draw from each sampled case as well as the position within the case. Do not restrict the sampling to the top or bottom layers or to the corners. The best sample is one selected from all the various positions in the shipping case. It is desirable but not mandatory to limit the number of sample units to a single container from any one case. Multiple sample units may be taken from a single case but not in excess of the following plan:

(1) When containers are packed 12 or less to a case, draw a maximum of 6 sample units from any one case; and

(2) When containers are packed more than 12 to a case but not more than 60, draw a maximum of 12 sample units from any one case; and

(3) When containers are packed more than 60 to a case but not more than 250, draw a maximum of 16 sample units from any one case; and

(4) When containers are packed more than 250 in a case, draw a maximum of 24 sample units from any one case.

[31 FR 4687, Mar. 19, 1966, as amended at 36 FR 18456, Sept. 15, 1971. Redesignated at 42 FR 32514, June 27, 1977 and 46 FR 63203, Dec. 31, 1981]

§ 42.106 Classifying and recording defects.

(a) *Classifying defects.* Examine each sample unit for the applicable type of defects listed in the table covering the container being inspected in §§ 42.112 and 42.113. Other defects, not specifically listed, shall be classified according to their effect on the intended use of the container.

(1) Related defects are defects on a single container that are related to a single cause. If the initial incident causing one of the defects had not occurred, none of the other related defects on the container would be present. As an example of related defects, a can may be a leaker and the exterior may also be seriously rusted due to the leakage of the contents. In this case, the container is scored only once for these two defects since the rust condition can be attributed to the leak. Score the container according to whichever condition is the most serious. In this example, score as a "leaker" (a critical defect) and not as "pitted rust" (a major defect).

(2) Unrelated defects are defects on a single container that result from separate causes. If the incident that caused one of the defects had not occurred, the other unrelated defects on the container would still be present. As an example of unrelated defects, a can may be seriously rusted, may have a bad dent along the seam, and the label may also be detached from the can because of improper gluing. In this case it is unlikely that any of the three defects exist because of a common cause. Therefore, they are considered unrelated defects and should be scored as three defects.

(3) The lot acceptance portion of this procedure is based on the number of defects per 100 containers. It is necessary

to determine if the defects on any one container are "related" defects or "unrelated" defects. A container is scored for the most serious of related defects, and is also scored for each unrelated defect.

(b) *Recording defects.* Record on a worksheet the number, type, and class (critical, major, or minor) of defects on each sample unit.

(c) *Totaling defects.* Add the number of defects in each class, then add the number of minor, major, and critical defects to obtain the total defects.

[31 FR 4687, Mar. 19, 1966, as amended at 36 FR 18456, Sept. 15, 1971. Redesignated at 42 FR 32514, June 27, 1977 and 46 FR 63203, Dec. 31, 1981]

§ 42.107 Lot acceptance criteria.

(a) The acceptability of the lot is determined by relating the number and class of defects enumerated on the worksheet to the acceptance and rejection numbers shown in §§ 42.109 through 42.111 for the respective sample size and Acceptable Quality Level (AQL).

(b) Unless otherwise specified, use the following AQL's for the respective class of defects:

Defect class	AQL at origin inspection	AQL at other than origin inspection
Critical	0.25	0.25
Major	1.5	2.5
Total	6.5	10.0

(c) Refer to the appropriate sample size and AQL and compare the number of defects found in the sample with the acceptance (Ac) and rejection (Re) numbers in the sampling plan.

(1) Accept the lot after examining the single sample or first sample of a double sampling plan when all of the following conditions are met:

(i) The number of critical defects does not exceed the applicable acceptance number (Ac) for critical defects, and

(ii) The number of major defects does not exceed the applicable acceptance number (Ac) for major defects, and

(iii) The total number of critical, major, and minor defects does not exceed the applicable acceptance number (Ac) for total defects.