

## 2.2.3. THE PACKERS GUIDE

The “Code of practical guidance for packers and importers (Weights and Measures Act 1979)” is more colloquially known as “The Packers Guide”. It was published by the DTI and HMSO (Her Majesty’s Stationery Office) and, although it refers to the 1979 Act which has now been superseded, it was explicitly referred to in The Weights and Measures (Packaged Goods) Regulations 1986. The guide is again referred to in the guidance note to the 2006 Regulations published by the DTI and is still considered relevant to average weight control, although reference to any requirements of the 1986 Regulations is no longer valid. It must, however, be remembered that the packers guide does not have the legal significance that it had under the Packaged Goods Regulations 1986.

The main focus of the guide is to provide information on how to comply with legislation if operating to an “average system” that was effectively implemented in the 1979 Act and the associated packaged goods regulations. There is also an Inspectors’ Manual that the packers guide refers to and suggests that packers may also wish to be familiar with the guidance for inspectors.

The guide is made up of 6 chapters and 8 appendices as follows.

### Chapter 1 Background to the average system

Basic information outlining the average system. This chapter notes that:

“...the *average* contents must not be less [than the nominal quantity]. The legislation achieves this object by requiring the packer or importer of packages to ensure that, whenever an Inspector carries out what is known as a *reference test* on a group of packages, the test is passed.”

However, without an inspector continually performing such a test, a packer will not know if he is complying with the law. The text goes further to say:

“Although the primary legal duty of a packer or importer is to ensure that the Inspectors’ reference test is passed, he can do this by ensuring that his packages comply with three rules, referred to in this Code as the *Three Rules for Packers*.

- Rule 1* The actual contents of the packages shall be not less, on average, than the nominal quantity.
- Rule 2* Not more than 2<sup>1</sup>/<sub>2</sub>% of the packages may be non-standard, i.e. have negative errors larger than the TNE specified for the nominal quantity.
- Rule 3* No package may be inadequate, i.e. have a negative error larger than twice the specified TNE.”

Regulation 4(1) of the 2006 regulations lists the three packers’ rules with rule 2 requiring that “the proportion of packages ... shall be sufficiently small”. The inspectors reference tests defined in schedule 2 of the 2006 regulations specify the number of non-standard packages (“defective packages” in the 2006 regulations) for various test schemes, all of which are equivalent to more than 2<sup>1</sup>/<sub>2</sub>%, meaning that compliance with the above packers rules should ensure a reference test is passed allowing for statistical uncertainty.

The guide does emphasise the need to carry out checks and maintain records:

“To ensure that the packages he is producing or importing comply with the law at all times, the packer or importer is required to carry out checks on the contents of the packages ... and must keep for one year records of the checks.”

Although:

“A packer who is making up each package using equipment prescribed in Part II of Schedule 4 to the 1979 Regulations is however exempt from this requirement.”

Note that the 2006 regulations state that the relevant date for keeping records is the date by which the product ought to be consumed, or one year after the packages have left the possession of the packer or importer, whichever occurs first (regulation 9).

The table of tolerable negative errors (TNE) is reproduced from the 1979 regulations and is the same as that in schedule 3 of the 2006 regulations:

Nominal quantity (Q <sub>n</sub> ) g or ml		Tolerable negative error (TNE)	
		as % of Q <sub>n</sub>	g or ml
5 to	50	9	-
50 to	100	-	4.5
100 to	200	4.5	-
200 to	300	-	9
300 to	500	3	-
500 to	1,000	-	15
1,000 to	10,000	1.5	-
10,000 to	15,000	-	150
above	15,000	1	-

The meaning of the ‘e’ mark is also explained:

“The ‘e’ mark ... is not obligatory but, when used, is a guarantee recognised throughout the EEC that the goods to which it is applied have been packed by weight or volume in accordance with the relevant EEC Directive.”

### **Chapter 2 Packers’ and importers’ responsibilities**

Duties and responsibilities are described in relation to; the Inspectors’ test, labelling, checks and records, export, equipment, and density determination.

With regard to equipment for checking packages, it states:

“Non-automatic weighing machines used for checking packages after they have been made up ... may be stamped or not.”

But also:

“The accuracy of the equipment is to be verified every working day by applying stamped weights equal to the nominal quantity of the packages checked, and also to the maximum capacity of the equipment.”

*Note that this is now superseded by the guide on the 2006 Regulations which stipulates that non-automatic weighing instruments must be stamped and the use of unverified instruments is not legal.*

### **Chapter 3 Quantity control of packages**

Control systems are discussed but reference is made to the appendices which go in to significantly more detail.

### **Chapter 4 Rectification of unacceptable packages**

Possible reasons for requiring rectification are given together with procedures for handling them and various methods of rectification.

## Chapter 5 The National Metrological Co-ordinating unit

The role and function of the unit are described. (This unit has now been abolished, SI 1987 No. 2187.)

## Chapter 6 Importers

The definition of an importer is given together with their duties. A worked example is also provided giving a demonstration of a sampling scheme and associated calculations and records.

## Appendix A Glossary

Terms specific to the Code and the subject matter are defined.

## Appendix B The e-mark

The definition of the e-mark is reproduced from the Measuring Instruments (EEC Requirements) Regulations 1975.

## Appendix C Control by sampling

This appendix provides very detailed information on the requirements of sampling procedures based on statistical methods. These procedures include the requirement on the packer to:

“...obtain more information about his filling process and to use that information to set up an effective control system.”

and:

“A packer needs information about the performance in order to decide at what level to direct the filling process i.e. the target quantity,  $Q_t$ ”

It explains that:

“Under very favourable circumstances and tight control it might be possible for the minimum target quantity [ $Q_t$ ] to coincide with the nominal quantity,  $Q_n$ , ...”

i.e. the packer is likely to have to set a target value higher than the nominal quantity to allow for various factors.

It is worth noting that the procedures described are much more than checking that the samples comply with the Three Rules for Packers, as the samples taken may not necessarily be representative of the production batch as a whole. Also, a complete sampling system must include a consideration of the sampling frequency, the possibility of false errors and procedures to follow if results are outside of specified limits.

The guide gives details of how to perform an initial process capability study and obtain the necessary information to determine the target quantity and set up a control system. The following factors are discussed:

- a. process variability allowance;
- b. additional allowance for wandering average;
- c. sampling allowance;
- d. storage allowance;
- e. tare variability allowance (where checks are made on gross weights);
- f. miscellaneous factors.

It is worth noting that the sampling allowance factors have the effect that the more frequent the sampling and the more items per sample, the lower the target quantity needs to be above the nominal quantity.

**Appendix D Control by checkweighers**

The use of automatic checkweighers is permitted within the guide but procedures must be put in place to ensure that they are operating correctly. This appendix details the requirements of those procedures and gives some worked examples.

**Appendix E Use of measuring container bottles**

Measuring container bottles and templets are permitted. However, by its nature no weighing is required.

**Appendix F An 'off the peg' control system**

A simplified control system is described that is easier to implement than following the detailed requirements outlined in appendix C but is more restrictive.

**Appendix G Assessment of alternative control systems**

Different control systems are evaluated, mainly for the benefit of packers who already have systems in place and need to determine whether they are sufficient to comply with the legislation.

**Appendix H Modification of the 1979 Act in respect of class B packages**

Sections of the 1979 Act as amended by the 1979 Regulations are reproduced.

