

Urgent notice regarding compliance with the specifications of SANS 458, 289 and 1649

Introduction

Potatoes South Africa (PSA) received a letter from the NRCS (National Regulator for Compulsory Specifications) on 15 January 2020. The NRCS is, amongst others, the custodian of the Legal Metrology Act, 2014 (Act 9 of 2014), [weights and measures] which deals with measuring instruments and measurable products. They have the mandate to protect consumers against short measure or inaccurate measurement.

This is done through the legal metrology regulations, 2017 and the South African National Standards (SANS) also known as technical regulations, relevant to prepackages and measuring instruments. In terms of the regulations, SANS are made compulsory standards and producers must comply with these national standards when packing the potatoes.

The standards for prepackages are SANS 458 - *“Tolerances permitted for the accuracy of measurements of products (including prepackaged products) in terms of legal metrology legislation”* and SANS 289 - *“Labelling requirements for prepackaged products (prepackages) and general requirements for the sale of goods subject to legal metrology control”*, while for measuring instruments it is amongst others SANS 1649 - *“Non-automatic self-indicating, semi-self-indicating and non-self-indicating weighing instruments with denominated verification scale intervals”*.

This letter sent to PSA pertains, amongst others, to prepackaged potatoes that were encountered at various National Fresh Produce Markets (NFPM) with severe short masses. The letter mentioned quantities of as low as 8.525 kg (-1,475 kg) for 10 kg bags and 6.635 kg (-365 g) for 7 kg bags. Subsequently the NRCS requested a meeting with various industry stakeholders on 30 January 2020. PSA also met with the NRCS on 29 January 2020 in preparation for the meeting on 30 January 2020. PSA also sent out a News Flash to inform producers of the problem and the intentions of the NRCS to stop consignments on NFPM's that are not compliant.

The purpose of this Newsflash is to provide a brief synopsis of the current situation emanating from the letter received from the NRCS.

Problem statement

The following reasons were provided for the NRCS to act:

- Non-compliant bags delivered to markets in terms of weight tolerances as contained in the SANS 458.
- Non-compliant bags delivered to markets in terms of labelling requirements as contained in the SANS 289.
- The absence of corrective actions by offending producers to take corrective actions (repeat offenders).
- Poor and abusive interaction with NRCS inspectors on NFPM's.
- The perception that exists that tolerances are exploited, i.e. producers packing at the lower end of tolerances.

- Bags that still do not have date codes on the bag despite the fact that this is compulsory in terms of the Agricultural Products Standards (APS) Act and specifically the regulations applicable to potatoes.
- After selected farm visits by NRCS staff it was found that scales on the farms that were visited, are not compliant with the stipulations of the Legal Metrology regulations and SANS 1649.

During both meetings with the NRCS, it was explicitly stated, that the NRCS has a legal mandate to ensure compliance with the Act and associated standards. It was emphasized that measures must be put in place to ensure compliance as soon as possible. The NRCS indicated that it is willing to work with industry to address the problem.

What does it all mean?

- **SANS 289** - *“Labelling requirements for prepackaged products (prepackages) and general requirements for the sale of goods subject to legal metrology control”*

The NRCS encountered bags on NFPMs where the quantity was incorrectly printed on the bags as follows:

- Nett weight 10KG
- Nett weight 10Kg
- Nett weight 10Kg when packed

South Africa uses the SI system (International System of Units) to indicate measurements and quantities. Permissible units for prepackages are also outlined in SANS 289. According to the SI system the capital K is for kelvin, which is the base unit of (thermodynamic) temperature and G is the unit for a prefix called Giga and means (10⁹)/Hundred Thousand. In addition, there must be a space between the 10 and the associated unit. The word weight refers to the force exerted on an object by gravity and is not to be used in relation to declarations of statement of quantity in mass.

The SANS 289 prescribes as follows:

- Neither a period (full stop) nor the letter "s" shall be used after any of the symbols.
- A single space shall be used to separate the number from the unit of measurement.
- Appropriate phrases such as "net", "net mass", "net contents", or "net quantity" may be used in the declaration of the net quantity. Such phrases may appear either before or after the net quantity declaration. (Note the spelling of “net” and not “nett)
- The words "approximately" and "when packed" shall not be used in the declaration of the net quantity unless specifically permitted for certain products.

The correct way to indicate the mass on the bag would be either one of the following:

10 kg
Net mass 10 kg
10 kg Net
Net contents 10 kg
10 kilogram

The NRCS is aware that there might be many bags currently being used and/or on farms that may not be compliant. It is vitally important that producers liaise with bag manufacturers to ensure that any new bags are compliant with SANS 289.

In order to address this issue of bags that are already in the market the NRCS proposed the following in order for them to consider specific concessions:

- i. PSA must do an inventory of all bags that are currently in the market, e.g. on farms, that will be used for packing potatoes. In order to do this all producers are requested to provide the following information:
 - a. Full contact details;
 - b. Indicate the brand(s) used on bags (use photos if necessary);
 - c. Indicate the declared quantity on the bags (e.g. 10 kg or 7 kg);
 - d. Indicate the number of bags on hand; and
 - e. Give an indication of how long it will take to deplete the bags.
- ii. The information requested in point (i) must be submitted to PSA at the following e-mail address (bags@potatoes.co.za) by 28 February 2020. PSA will submit the information to the NRCS to consider specific concessions.

The NRCS emphasized that any producers not on the list for consideration of specific concessions will have to stop using the bags as it will not be permitted to be used for this interim period if PSA is successful with this request.

- **SANS 458** - *“Tolerances permitted for the accuracy of measurements of products (including prepackaged products) in terms of legal metrology legislation”*

Prepackages shall comply with the applicable requirements and where necessary, packers shall make allowance for a possible shrinkage or loss of quantity after packing.

SANS 458 makes provision that potatoes, when packed in, for example 10 kg bags, that are not hermetically sealed, shall comply for at least seven days after the day of packing and have an individual tolerance of 5 % (500 g) per 10 000 g (10 kg) from the day of packing up to the seventh day after packing.

SANS 458 stipulates three rules to comply. These rules apply for 7 days after the day of packing. Random samples can be taken at any level of distribution including the point-of-pack, distribution and wholesale transactions, and retail sale (e.g. where prepackages are offered or exposed for sale or sold), in other words anywhere the potatoes are found as long it is within the 7 day period.

The rules are as follows: (Note the description below does not use the terminology used in SANS 458)

- **Rule 1: Average requirement**

The average actual quantity obtained after weighing a sample of bags must be at least 10 kg. This means that some bags in the random sample can weigh less than 10 kg even up to 9.5 kg (10 kg minus the 5% tolerance), but then there must be other bags in the sample that weigh more than 10 kg to compensate for the bags that are below 10 kg. Thus, if a sample of 80 bags is weighed the average of all 80 bags must be 10 kg.

If this is not the case, the whole consignment may be stopped. Consignments of a producer may be stopped country wide to ensure that non-compliant consignments are not moved between markets.

[An easy on farm test would be to weigh the bags on the pallet:

- 110 bags of 10kg potatoes per bag on a pallet = 1 100 kg (mass of potatoes);
- Mass of 1 empty bag is 76 g. Thus, 110 empty bags will weigh 8.36 kg;
- The mass of a (mampara) pallet is 13 kg (note a CHEP pallet weighs more ± 27 kg);
- **Total mass including pallet when packed should be 1 121.36 kg]**

Individual pre-package requirements:

- **Rule 2: T1-error**

An allowance of not more than 2.5 % is given for the number of bags in a consignment/sample that may weigh less 9.5 kg (10 kg minus the 5% tolerance). For example, if a batch consists of 100 bags there may only be 2½ (rounded up to 3) bags between 9.5 kg and 9 kg; if a 4th bag is found the batch or consignment will be stopped and returned for correction.

Thus, if the NRCS is alerted about bags containing T1 errors they would find it necessary to investigate further. In short, if more than 2.5 % of bags in the random sample drawn by inspectors weighs between 9.5 kg and 9 kg the consignment will be stopped (also on other markets).

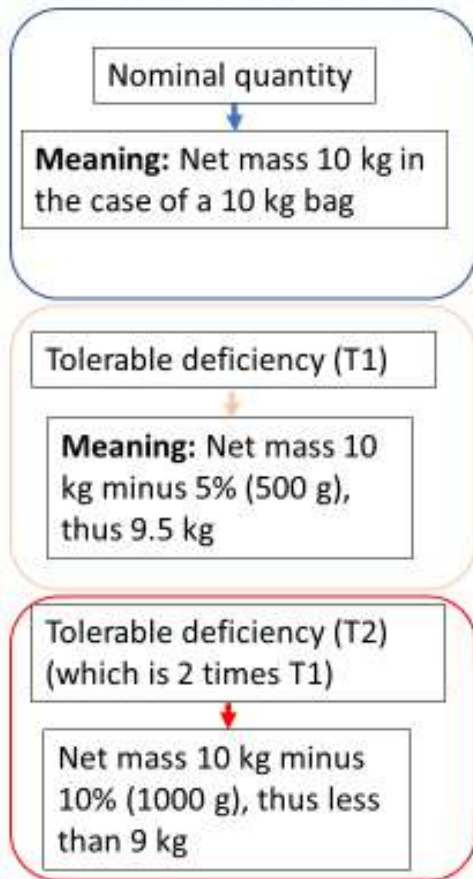
- **Rule 3: T2-error**

If any bag weighs less than 9 kg, the consignment is stopped. This means that if any sample is taken of, for example, 80 bags, and the 15th bag weighs less than 9 kg the consignment is stopped, and no further weighing will take place. If the 1st bag or any bag weighed at any place is 8.999 kg or less, the whole consignment automatically failed, whether it is found on the day of receipt at the market or on the 7th day after packing.

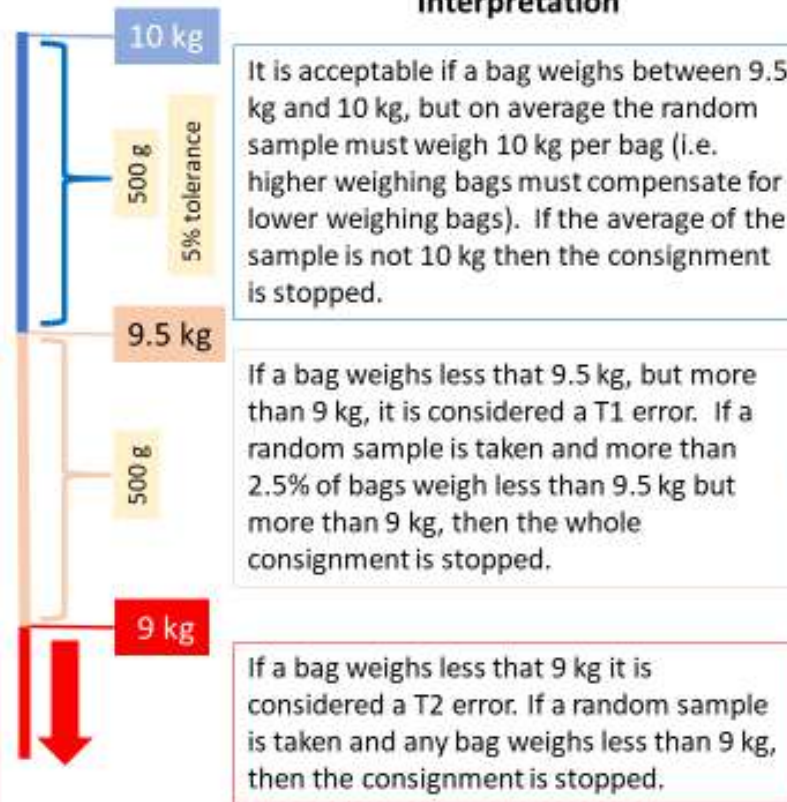
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Explaining the three rules using a 10 kg bag (until 7 days after packing [date code])

SANS Terminology and meaning



Interpretation



Random sample size

Size of consignment	Random sample size
100 - 500 bags	50
+500 - 3200 bags	80
+3200 bags	125

Sample size	Bags allowed per sample applicable to T1	Stop consignment
50	3	4
80	5	6
125	7	8

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- **Scales**

Because the weight of bags and the associated tolerances are part of SANS 458 the equipment used to ensure compliance is also regulated by the Legal Metrology Act, i.e. the scales used.

The Act refers to Type approved and verified scales. This, in short, means scales must be approved by the NRCS before it may be used in South Africa for a legal or trade purpose and will be marked with a SA number to indicate that it is approved. All scales must be verified (assized as referred to in the past) by a service provider appointed by the NRCS to verify instruments on their behalf.

Once a scale is verified and a certificate is received as prove of verification, no modifications, like a bin affixed to the platform to hold the potato bags upright may be made on the scale. If a problem arises in terms of SANS 458 the NRCS can request evidence (a copy of the certificate of verification) that scales are compliant. The NRCS can through its legislative mandate conduct inspections on farms to verify that measuring equipment is according to standard.

The NRCS takes cognisance that Flo-Scan and Sennah scales are used widely in the industry, and provision for the use of these scales are made through Regulation 137. According to the representative of the scale industry association that attended the meeting mentioned, Regulation 137 should be read in conjunction with Regulation 138 as well as SANS 458 where the suitability of scales are described. The general principles that apply in terms of scales should be the following:

- Demand accuracy from the service providers used, which should preferably be accredited with SANAS and designated (appointed) by the NRCS.
- Interrogate weighing practises, e.g. how often is scales validated, what is the consistency of a scale and are there a manual check point to verify the mass of bags.
- Make sure checked scales are verified as prescribed to maintain its accuracy.

In short, the use of Flo-scan and Sennah scales are acknowledged, but there must be type approved and verified scales after the final point of packaging to check the accuracy of the Flo-scan and/or Sennah scales. These checks must be recorded and be available on request by the NRCS.

Note the following: SANS 458 – 4.4 Suitability of instruments

An instrument used for checking shall be an instrument that complies with the following requirements:

- a) it shall be of an approved type, if type approval is required;
- b) it shall have a valid verification status;
- d) it shall not be used below any minimum quantity permitted to be measured as specified in type approval documentation or in any other applicable legislation (see foreword); and
- e) instruments used for checking purposes shall be of a type permitted by legislation for direct sales to the public.

A check scale shall have a resolution of not more than 0,1T (10% of the tolerance) of the prepackage being measured in the case of instruments with digital indication, i.e. 1/10 of 500 g = 50 g. In other words, the tolerance for a 10 kg bag is 5% (or 500 g). The intervals of the scale used must therefore be 50 g. In the case of a 7 kg bag the 5% equates to 35 g. The intervals of the scale should then be 20 g since there are no scales with a 25 g interval.

Please direct any questions or queries in writing to bags@potatoes.co.za. The reason is that such questions and queries can then be forwarded to the NRCS to ensure answers are in line with the respective SANS technical regulations.

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