South African Maritime Safety Authority

Ref: **SM6/5/2/1**
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Date: 12 May 2011

Marine Notice No. 7 of 2011

SAMSA Approval of Lifejackets and Buoyancy Aids and the Compulsory Standards for Lifejackets used on South African Vessels

TO ALL PERSONS PURCHASING, SUPPLYING, INSPECTING OR USING LIFEJACKETS ABOARD SOUTH AFRICAN SHIPS, INCLUDING RECREATIONAL VESSELS.

Marine Notice No.12 of 2010 is cancelled

Summary

This Notice is a general advisory notice to the industry regarding the amended process by which lifejackets and buoyancy aids are approved for sale in South Africa.

This Notice also explains SAMSA's current policy with respect to the use of the new lifejackets and buoyancy aids in lieu of the fact that existing maritime legislation has not as yet been amended to accommodate these new changes.

1. SAMSA "Approval" and meeting the compulsory standards of quality and performance

The National Small Vessel Safety Regulations 2007 and the Safety Equipment Regulations 1968 require all lifejackets and buoyancy aids supplied to ships and boats as part of the prescribed safety equipment to be 'approved' by SAMSA .

In addition, a new statute came into effect on the 6th April 2009 which makes the ISO (also read European) standards relating to all Personal Flotation Devices (PFD's) compulsory in South Africa. The new statutes consist of an enabling set of regulations and ten SANS compulsory standards covering all types of lifejackets and buoyancy aids.

It is therefore illegal to sell any PFD's in South Africa which do not comply with these new standards. In addition there is a "Regulator" who's responsibility it is to ensure, *inter alia*, that PFD's which do not meet the national standard are not stocked or sold to the public.

Manufacturers and importers of PFD's first have to satisfy SAMSA that the items are "fit for use" by way of design and have all the features considered necessary by SAMSA to qualify for SAMSA approval and subsequent use as mandatory equipment aboard South African vessels regardless of their size or area of operation. Once SAMSA is satisfied that the item is desireable and meets the needs of the industry the item then has to be forwarded to the NRCS who will satisfy themselves that the items intended for sale meet the national standards. The Regulator is also responsible for ensuring the continued quality of the product.

Control is effected in two ways, firstly at each inspection by surveyors and safety officers of the safety equipment of vessels, as well as by the Regulator through the statutory requirement to obtain approval to market these items of safety equipment before being allowed to sell the PFD's to the industry.

The visible proof of having obtained both approvals is indicated on the garment firstly by the SAMSA 'Approval" stamp (whether screened onto the item or actually stamped onto it) and secondly by the unique number: issued by the "Regulator" as follows;

SAMSA APPROVED
DATE
DURBAN / CAPE TOWN

(EXAMPLE OF THE <u>HOMOLOGATION NUMBER</u>:

ZA / 8032 / 0001

ZA - Denotes South Africa
8032 - VC Specification
0001 - Manuf. Company Number Eg. "ZERO" Product.)

The markings on, and information supplied with, the new PFD's is more informative than before which should aid buyers in making the correct choice of PFD.

SAMSA however has the responsibility of dictating the use of such safety equipment on South African vessels as well as determining the performance level of the PFD required to satisfy the statutory obligation to have such equipment aboard, according to the intended use of the vessels.

Until further notice, all PFD's supplied legally under the old regime remain suitable for their intended use. That is to say all existing;

- SAMSA approved SOLAS lifejackets;
- SAMSA approved "horseshoe" Working Type Lifejackets;
- SAMSA approved Buoyancy Aids.

2. The new statutory requirements and compulsory standards

On the 6th February 2009, [*came into force two months afterwards – i.e. on the 6th April 2009*] the old compulsory specifications VC 8012 and the standards SABS 1417 (50 Newtons of buoyancy), 146 (73 Newtons of buoyancy) and 170 (155 Newtons of buoyancy) were replaced by a whole new lifejacket regime comprising of enabling legislation (R91 – which is a revised VC 8012) as well as ten SANS standards have been introduced. Eight of which are compulsory specifications for PFD's and two which relate to testing procedures and guidance regarding the use of the items.

The relevant standards relating to the compulsory standards of the various PFD's are as follows;

SANS 12402-1: Personal flotation devices -Part 1: Lifejackets for seagoing ships -Safety requirements'. (Level 150)

SANS 12402-2: Personal flotation devices -Part 2: Lifejackets for extreme offshore conditions (level 275) -Safety requirements.

SANS 12402-3: Personal flotation devices -Part 3: Lifejackets for offshore conditions (level 150) -Safety requirements.

SANS 12402-4: Personal flotation devices -Part 4: Lifejackets for inland/close to shore conditions (level 100) Safety requirements.

SANS 12402-5: Personal flotation devices Part 5: Buoyancy aids (level 50) -Safety requirements.

SANS 12402-6: Personal flotation devices -Part 6: Special purpose Lifejackets and buoyancy aids -Safety requirements and additional test methods.

SANS 12402-7: Personal flotation devices -Part 7: Materials and components Safety requirements and test methods.

SANS 12402-8: Personal flotation devices -Part 8: Accessories -Safety requirements and test methods."

NOTE: The level reflects the nominal number of Newtons of buoyancy provided at that level of performance.

2.1 The new regime

Some of the relevant statutory measures which define the regime include;

- ✓ SAMSA whose duty is to Approve all lifejackets and buoyancy aids for use on South African vessels;
- ✓ Proof of SAMSA's approval is indicated on the item by way of a stamp; or permanently affixed label;
- ✓ A "Regulator" whose duty it is to ensure that <u>all</u> flotation devices sold in SA are compliant, whether made locally or imported [*National Regulator for Compulsory Specifications (NRCS)*];

- ✓ So that buyers and inspectors can determine if the item on the shelf is the correct one there is a unique and visible "approval number" which is traceable and which must appear on every flotation device sold [*e.g. RSA xxxxxx – minimum font size 6mm high*];
- ✓ To allow for imports, identical standards are allowed, for example ISO, IEG and EN, in which case the testing would be waived, but the RSA number would still have to appear on the items;
- ✓ To allow for better fitting equipment there is a spread of sizes and designs allowed in each category of flotation device.
- ✓ It still falls to SAMSA to legislate regarding which performance levels are required to be met according to the foreseeable conditions expected to be met.

3. Interpreting the new requirements

Finding direct equivalencies to the old types of buoyancy aids and lifejackets which were sold and which are still in use is not really possible due to the change in the philosophical approach involved in the selection process.

Various sets of South African regulations currently mention lifejackets, for example;

- ✓ SOLAS (which stays the same as it is regulated by IMO);
- ✓ The Life Saving Equipment Regulations 1968, where two types of lifejacket are envisaged, namely a 155N SOLAS type and a "Working Type Lifejacket" of 73 Newtons, both to be fitted with lights;
- ✓ The Merchant Shipping (National Small Vessel Safety) Regulations 2007, where there are references to SABS 146, 1417 as well as ISO/CE equivalent standards which are to be totally replaced by the new SANS or equivalent standards.

Amendments will be made to these statutes in due course so that they are aligned with the new legislation.

4. The new classes and descriptions of flotation devices

4.1 Classes

Lifejackets

These devices provide face-up flotation with levels of support sufficient for various open and rough water uses. Lifejackets have a buoyancy distribution sufficient to turn users, when tested on users wearing swimming costumes according to ISO 12402, to a position where the mouth has a defined freeboard above the water's surface, even when the user is unconscious.

Buoyancy aids

These devices should be comfortable for continuous wear and provide lift, without significant face-up turning ability, to float the conscious user with the level of support marked on the device. Buoyancy aids shall at least be suitable for sheltered waters, but at higher performance levels may be suitable for some users in other waters.

Special purpose lifejackets and buoyancy aids

These devices perform as above with different levels of support, but have modifications related to special applications for use. These applications shall not relate to essential requirements such as in-water performance, stability and safety in use. The specific conditions for use shall be stated on their label to maintain essential requirements.

4.2 Performance levels

Level 275

This level is intended primarily for offshore use under extreme conditions and by people who are carrying significant weights and thus require additional buoyancy. It is also of value to those who are wearing clothing which traps air and which may adversely affect the self-righting capacity of the lifejacket. It is designed to ensure that the user is floating in the correct position with his mouth and nose clear of the surface. See SANS 12402-2.

Level 150

This level is intended for general application or for use with foul weather clothing. It will turn an unconscious person into a safe position and requires no subsequent action by the user to maintain this position. See SANS 12402-3.

Level 100
This level is intended for those who may have to wait for rescue, but are likely to do so in sheltered water. The device should not be used in rough conditions. See ISO 12402-4.

Level 50
This level is intended for use by those who are competent swimmers and who are near to bank or shore, or who have help and a means of rescue close at hand. These garments have minimal bulk, but they are of limited use in disturbed water, and cannot be expected to keep the user safe for a long period of time. They do not have sufficient buoyancy to protect people who are unable to help themselves. They require active participation by the user. See ISO 12402-5.

4.3 Accessories required for lifejackets

According to the standards certain accessories are either standard or optional. Certain critical accessories have been ruled by SAMSA to be mandatory for both lifejackets as well as buoyancy aids in South Africa as follows:

Accessory	Mandatory (M) / Optional (O)
Emergency light	M[a]
Whistle	M
Lifting loop	M
Buddy line	O
Retro-reflective material	M
Deck safety harness	O
Overpressure relief valve	O
Multi-chamber system	M[b]
Protective covers	O
Spray hood	O

a Compulsory for all commercial vessels over 25 GT , pleasure vessels over 100GT and passenger vessels operating at night or outside of the harbor.
b Only for inflatable PFD's.

Note that when SAMSA considers the suitability of lifejackets and buoyancy aids the follows factors are considered in addition to the mandatory list above;

- ✓ The design should be simple and streamlined and easy to don in a stressful situation;
- ✓ There must be no loose lanyards, straps, tags or bits to snag a person who is already trying to survive;
- ✓ Whistle cords, lifting straps and similar accessories must have a safe place where they can be tucked away;
- ✓ Retro-reflective tape MUST be sewn on and not only glued on (except for inflatable lifejackets);
- ✓ There must be a decent amount of "SOLAS" approved / " wheel symbol", retro-reflective tape on BOTH the front and the back, placed high up where it will be seen as follows:

  Level 50 / 100: at least 100 cm2 front and back
  Level 150: at least 300 cm2 front and back
  Level 275: at least 400 cm2 front and back

- ✓ There should be a good whistle (EN/ISO 12402-8)
- ✓ The Lifting loop is now placed at the centre of mass and not on the top and should be at least 150mm long, fitted within an area10cm either side of a vertical line between the lower end of the sternum and the umbilicus "belly button". It must not flap about waiting to get caught, but be able to be safely tucked away;
- ✓ The manufacturer's name or marking must appear on any buckles or clips e.g. YKK;
- ✓ The new pictogram "person in water" must be at least 50mm x 50mm;
- ✓ There should be CLEAR instructions in ENGLISH which also show what size person the PFD is designed for;;
- ✓ Branding is allowed of course, but not misleading names such as "SOLAS" when placed on a 100N lifejacket;

When SAMSA is satisfied that the item is suitable for use on SA vessels or a particular niche in the industry they will issue a letter to that effect addressed to the NRCS who will then ensure that the item meets the compulsory quality and performance standards.

5. INTERPRETATION OF NEW REQUIREMENTS

5.1 Lifejackets for seagoing ships shall comply with SANS 12402-1: *Personal flotation devices -Part* 1: L*ifejackets for seagoing* ships *-Safety requirements'.*

The reference to seagoing vessels applies to vessels covered by SOLAS and the performance level is 150.

5.2 Lifejackets for extreme offshore conditions shall comply with SANS 12402-2: *Personal flotation devices -Part* 2: L*ifejackets for extreme offshore conditions (level* 275) *-Safety requirements.*

In the South African context, this is interpreted by SAMSA to apply to any vessels certificated to operate south of 40 degrees south latitude, and includes SOLAS vessels, fishing vessels or any other South African registered vessels.

5.3 Lifejackets for offshore conditions shall comply with SANS 12402-3: *Personal flotation devices -Part* 3: *Lifejackets for offshore conditions (level 150) -Safety requirements.*

In the South African context this is interpreted by SAMSA to apply to all vessels certificated to operate "offshore". (SAMSA definition in the South African context is as follows: "offshore" means any vessel, regardless of size, operating at night and/or more than 15 miles offshore.)

5.4 Lifejackets for inland/close to shore conditions shall comply with SANS *12402-4: Personal flotation devices -Part* 4: L*ifejackets for inland/close to shore conditions (level 100) Safety requirements.*

In the South African context this is interpreted by SAMSA to apply to any vessels certificated to operate near-shore during daylight hours. (SAMSA definition of near-shore means all vessels on voyages of less than16 hours and always operating less than 15 nautical miles from shore.)

In addition, any passenger vessels whether operating in sheltered waters (including inland waters) or operating from a harbor less than 5 nautical miles offshore and 15 nautical miles from a safe haven, are required to carry level 100 lifejackets.

5.5 Buoyancy aids shall comply with SANS 12402-5: *Personal flotation devices Part* 5: *Buoyancy aids (level 50) -Safety requirements.*

In the South African context this is interpreted by SAMSA to be an appropriate PFD to meet the mandatory requirements for all vessels other than passenger vessels operating on inland waters, and category E vessels, which operate less than 1 nautical mile from shore.
(It is no longer considered safe to use buoyancy aids only on category D vessels – operating less than 5 nautical miles from shore.)

In addition this level of PFD is appropriate as a buoyancy aid when required to be worn by crewmembers at the workplace by regulation.

5.6 Special purpose lifejackets and buoyancy aids shall comply with SANS *12402-6: Personal flotation devices -Part* 6: *Special purpose Lifejackets and buoyancy aids -Safety requirements and additional test methods.*

These are PFD designed specifically for certain sports and applications. Examples would be white water rafting or canoeing, kayaking, windsurfing, dinghy sailing, water skiing etc. - as well as PFD's for young children less than 6 years old.

5.7 SPECIAL NOTE 1

The industry has many times voiced concerns regarding the need to carry buoyancy aids as well as lifejackets in certain operations, however the performance requirements of a lifejacket are so different from those expected of a buoyancy aid that one can never fully replace the other.

The SANS/ISO/EN standards make provision for inflatable lifejackets which comply fully with the performance of a lifejacket as well as being easy and comfortable to wear, thus also fulfilling the role of a buoyancy aid.

Many types and styles of PFD's are made for the overseas market where they are very widely used for the exact same reasons; that being that nobody plans for an emergency and if one makes it a habit of wearing an inflatable PFD it is always ready to be deployed.

5.8 SPECIAL NOTE 2

Although SAMSA interprets the new standards as detailed above, and expects our surveyors to enforce and promote the use of the new higher standards, especially with respect to the intended area of operation of the vessel. We acknowledge that the current references to compulsory carriage of lifejackets on vessels under 100 gross tons, prescribes the use of 70 Newton "working type" lifejackets.

SAMSA is well aware that on some vessels, in the smaller vessel categories under 100 tons, storage space may be a problem.

On the basis that the level 100 lifejacket has 30 Newton more buoyancy, and is therefore a reasonable substitute for the working type lifejacket on smaller vessels under 100 Gross Tons, where space is a problem and the nature of the operation does not absolutely dictate the use of the higher specification lifejackets.

Changes to the regulations are not immediately in the pipeline and in the interim SAMSA will monitor the situation and apply their minds to the problem when amending the regulations.

Remember …..

"THE BEST LIFEJACKET IS THE ONE YOU ARE WEARING"

The industry is therefore encouraged to explore this possibility as the suppliers will only stock those items demanded by the industry.

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