

Submission: **SR01-09**

**Offshore Special Regulations - 3.08.3**

Hatches

A submission from the US SAILING

Proposal

Delete current 3.08.3 and insert new 3.08.3:

<b><u>3.08.3</u></b>	<b><u>Downflooding</u></b>	
<b><u>a)</u></b>	<b><u>A hatch, which shall include any opening port, shall be:</u></b>	
<b><u>i</u></b>	<b><u>so arranged as to be above the water when the hull is heeled 90 degrees;</u></b>	<b><u>Mo0,1,2,3,4</u></b>
<b><u>ii</u></b>	<b><u>permanently attached; and</u></b>	<b><u>**</u></b> <b><u>—</u></b>
<b><u>iii</u></b>	<b><u>capable of being firmly shut immediately and remaining firmly shut in a 180 degree capsize (inversion).</u></b>	<b><u>**</u></b> <b><u>—</u></b>
<b><u>b)</u></b>	<b><u>Hatches over lockers that open to the interior of the vessel shall be included in this requirement.</u></b>	<b><u>**</u></b> <b><u>—</u></b>
<b><u>c)</u></b>	<b><u>A yacht may have a maximum of four (two on each side of the centerline) hatches that do not conform to the requirement of OSR 3.08(a)(i), provided the opening of each is less than 0.071 sq m (110 sq in).</u></b>	<b><u>Mo1,2,3,4</u></b>
<b><u>d)</u></b>	<b><u>A hatch shall not be required to comply with OSR 3.08.3(a)(i) or counted as a hatch under 3.08(c), provided the hatch complies with ISO12216 design category A and is clearly labeled and used in accordance with the following instruction: “NOT TO BE OPENED AT SEA.”</u></b>	<b><u>Mo1,2,3,4</u></b>
<b><u>e)</u></b>	<b><u>Effective for boats of a series begun after January 1, 2009, a certificate signed by the designer or other person who performed a downflooding analysis shall be carried on board stating compliance with this OSR 3.08.3. This certificate shall clearly identify which hatches, if any, do not meet the requirements of OSR 3.08(a)(i) and are therefore subject to OSR 3.08(c) or (d). For purposes of this rule the vessel’s displacement condition for the analysis shall be not less than the Light Craft Condition LCC (in conformity with 6.3 of the EN ISO 8666 standard and 3.5.1 of the EN 12217-2 standard).</u></b>	<b><u>Mo0,1,2,3,4</u></b>
<b><u>f)</u></b>	<b><u>If a vessel is not required to have, and does not have, on board a certificate described in OSR 3.08.3(e), a hatch that does not cross the centerline of the vessel shall be presumed not to satisfy OSR 3.08.3(a)(i).</u></b>	<b><u>Mo0,1,2,3,4</u></b>

### Current Position

3.08.3	A companionway hatch extending below the local sheerline, shall:	
a)	not be permitted in a yacht with a cockpit opening aft to the sea (3.09.6)	**
b)	be capable of being blocked off up to the level of the local sheerline, provided that the companionway hatch shall continue to give access to the interior with the blocking devices (e.g. washboards) in place	**

### Reason

Effective 1 January 2009 Section 3.08 of the Offshore Special Regulations was amended by, among other things, modifying 3.08.1 and inserting a new 3.08.2. These provisions deal with hatches forward of the maximum beam station. The purpose of the amendments was to recognize that many production boat builders have in the past installed and continue to install ports in the sides of coach roofs that are larger than the maximum permitted (0.071 m<sup>2</sup>). To accommodate builders and to preserve the fundamental purpose of the regulation the amendments provide that hatches larger than the maximum are permitted provided they remain closed while at sea.

The former 3.08.2, which effective 1 January 2009 has been renumbered 3.08.3, essentially requires that hatches be:

- 1) above the water when the boat is heeled to 90 degrees;
- 2) permanently attached; and
- 3) capable of being shut immediately if the boat capsizes.

This rule was limited by ISAF Special Regulations Subcommittee Interpretation No. 1 dated January 3, 2003, which provided that a hatch only included openings that a person could pass through. This interpretation effectively excluded from the definition of "hatch" most opening ports on the sides of coach roofs and other small hatches.

Effective 1 January 2008, this rule was amended to permit two hatches on either side of the centerline that do not conform to requirement 1) above, provided each was less than 0.071 m<sup>2</sup> in area. In November 2008 Interpretation No. 1 was withdrawn as it was inconsistent with the amended regulation.

The amended rule combined with the withdrawal of Interpretation No. 1 creates the unintended consequence of disqualifying a very large number of existing yachts. Many yachts have more than two opening ports smaller than 0.071 m<sup>2</sup> or at least one opening port larger than 0.071 m<sup>2</sup> on their coach roof sides. Examples of such yachts include those manufactured by Beneteau, X-Yachts, Dehler, J/Boats, Valiant, Tartan, and Pacific Seacraft. Given the narrow side decks now common on many production boats, these ports are very likely to be immersed when the boat is heeled to 90 degrees. In addition, it has become increasingly common for yachts to have outward opening hatches on top of the coach roof just inboard of the coach roof sides. Small hatches over head compartments are a typical example. These hatches are often larger than 0.071 m<sup>2</sup> and may also be under water in a 90 degree knockdown. A boat having any of these features very likely would not satisfy the current OSR 3.08.3.

A further problem with the current rule is that if a yacht has not had a downflooding analysis performed (or actually been inclined to 90 degrees), it is difficult to know whether or not it complies with the rule. Yachts with a series date earlier than 1 January 2009 are not required to have a downflooding analysis. This leaves race organizers and participants in a difficult position.

The proposed rule attempts to balance the serious danger posed by downflooding through open ports with the legitimate desire of builders and owners to have well ventilated boats. It should not

be forgotten that poorly ventilated yachts can cause off watch crew to lose sleep and may increase the risk of dehydration. These to some extent are countervailing safety concerns.

The proposed OSR 3.08.3 would retain the provisions of the existing rule, but for Category 1-4 races would extend the exception now in OSR 3.08.2 relating to hatches forward of the maximum beam station to all hatches that might flood in a knockdown. This change would permit existing seaworthy boats that satisfied the OSRs up until the withdrawal of Interpretation No. 1 to compete without extensive modification.

Specifically the proposal would make the following changes. For Category 0 races the proposed rule eliminates the current exception allowing up to four opening hatches below the 90 degree downflooding line. For Category 1 through 4 races the four hatch exception is retained and a new exception would be added so that hatches that are labeled and used in accordance with the instruction "NOT TO BE OPENED AT SEA" would not be subject to the rule. This proposal would allow boats that satisfied the rule before the interpretation was withdrawn to race, but would require nonconforming hatches to remain closed. As noted above, the proposal makes OSR 3.08.3 consistent with the recently added 3.08.2, which provides the same exception for inward opening hatches forward of the maximum beam station. There seems to be little justification for providing this exception for hatches in the bow area and not for other hatches.

The proposal provides that in the absence of a downflooding analysis any hatch that is not on the centerline will be presumed to be immersed in a 90 degree knockdown. This is a conservative presumption, and it provides race participants and organizers the certainty they need to determine whether or not a grandfathered yacht complies with the rule. Under the current rule there is no mechanism for determining compliance with the rule for boats with a series date earlier than 2009, and in such circumstances it can be expected that the rule would be ignored.

Secretariat Note:

*The amendment is based on the 2008 – 2009 Offshore Special Regulations and notes the 2009 amendments in order to clearly understand the current position below which is the 2008 – 2009 text including the 2009 amendments:*

**3.08 Hatches & Companionways**

3.08.1	No hatch forward of the maximum beam station, other than a hatch in the side of a coachroof, shall open in such a way that the lid or cover moves into the open position towards the interior of the hull (excepting ports having an area of less than 0.071m <sup>2</sup> (110 sq in)).	**
3.08.2	A hatch fitted forward of the maximum beam station, located on the side of the coachroof, opening into the interior of the boat, and of area greater than 0.071m <sup>2</sup> shall comply with ISO12216 design category A and be clearly labelled and used in accordance with the following instruction: "NOT TO BE OPENED AT SEA" Attention is drawn to SR 3.02.1	**
3.08.3	A hatch shall be: <ul style="list-style-type: none"> <li>a) so arranged as to be above the water when the hull is heeled 90 degrees. Hatches over lockers that open to the interior of the vessel shall be included in this requirement. A yacht may have a maximum of four (two on each side of centerline) hatches that do not conform to this requirement, provided that the opening of each is less than 0.071 sq m (110 sq in). Effective for boats of a series begun after January 1, 2009, a written statement signed by the designer or other person who</li> </ul>	Mo0,1,2,3,4

performed the downflooding analysis shall be carried on board. For purposes of this rule the vessel's displacement condition for the analysis shall be the Light Craft Condition LCC (in conformity with 6.3 of the EN ISO 8666 standard and 3.5.1 of the EN ISO12217-2 standard).

	b) permanently attached	**
	c) capable of being firmly shut immediately and remaining firmly shut in a 180 degree capsize (inversion)	**
3.08.4	A companionway hatch shall:	
	a) be fitted with a strong securing arrangement which shall be operable from the exterior and interior including when the yacht is inverted	**
	b) have any blocking devices	**
	i) capable of being retained in position with the hatch open or shut	**
	ii) whether or not in position in the hatchway, secured to the yacht (e.g. by lanyard) for the duration of the race, to prevent their being lost overboard	**
	iii) permit exit in the event of inversion	
3.08.5	If the companionway extends below the local sheerline and the boat has a cockpit opening aft to the sea. the boat shall comply with one of the following:	Mo0,1,2,3,4
	a) the companionway sill shall not extend below the local sheerline. Or	Mo0,1,2,3,4
	b) be in full compliance with all aspects of ISO 11812 to design category A	Mo0,1,2,3,4
3.08.6	For boats with a cockpit closed aft to the sea where the companionway hatch extends below the local sheerline, the companionway shall be capable of being blocked off up to the level of the local sheerline, provided that the companionway hatch shall continue to give access to the interior with the blocking devices (e.g. washboards) in place	Mo0,1,2,3,4
3.08.7	A companionway hatch extending below the local sheerline and shall comply with either (a) or (b):	Mu0,1,2,3,4
	a) be capable of being blocked off up to the level of the local sheerline, whilst giving access to the interior with the blocking devices (e.g. washboards) in place with a minimum sill height of 300 mm.	Mu0,1,2,3,4
	b) i) A companionway hatch shall be in compliance with ISO 11812 – Watertight cockpits and quick-draining cockpits to design category A	Mu0,1,2,3
	ii) A companionway hatch shall be in compliance with ISO 11812 – Watertight cockpits and quick-draining cockpits to design category B	Mu4