SS 701:2023 (ICS 97.220.01, 97.220.40)

SINGAPORE STANDARD Code of practice for inland and open water sporting activities





SS 701:2023

(ICS 97.220.01, 97.220.40)

SINGAPORE STANDARD

Code of practice for inland and open water sporting activities

Published by Enterprise Singapore

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilised in any form or by any means, electronic or mechanical, including photocopying and microfilming, without permission in writing from Enterprise Singapore. Request for permission can be sent to: standards@enterprisesg.gov.sg.

© Enterprise Singapore 2023

ISBN 978-981-5163-69-8

SS 701:2023

Contents

Foreword		4
1	Scope	6
2	Normative references	6
3	Terms and definitions	7
4	Stakeholders' responsibilities	10
5	Buddy system	15
6	Enhancing supervision with technology	16
7	Drugs and alcohol	17
8	Safety management	18
9	Personal responsibility	20
10	Swimming caps	22
11	Open water safety equipment for underwater sports	22
12	Locations/facilities and environment	23
13	Water quality	26
14	Seasickness	27
15	Outreach and education – Water safety	28
16	Emergency preparedness	28
17	Incident reporting and management	32
18	Preventing collisions at sea	33
19	Specific open water sports	33

Annexes

А	Venue and equipment checklist	34
В	Checklist for safe water activities	36
С	Management of hazards	38
D	Risk assessment	42
Е	Boat checklist	44
F	Shallow water blackout	
G	Canoeing and kayaking	47
Н	Dragon boating	51
I	Free diving	57
J	Improvised rafting	
K	Open water swimming	65
L	Powered pleasure craft	66
М	Rowing	68
Ν	Sailing	69

SS 701:2023

0	Scuba diving	71
Ρ	Snorkelling	78
Q	Stand-up paddleboarding	80
R	Water skiing and wakeboarding	

Tables

A.1	Venue	3
A.2	Equipment	3
D.1	Examples of risk factors and its control measures	42
D.2	Severity	42
D.3	Likelihood	42
D.4	Risk evaluation	4
D.5	Risk assessment matrix	4
E.1	Safety boat inventory	4
E.2	Physical boat check	4
J.1	Safety support for improvised rafting in different open water environments	6
L.1	Classes of pleasure craft driving licences	6
O.1	Staffing ratio for adult participants	7

Figures

1	Drowning chain of survival	15
2	Different types of PFDs	21
C.1	Method of classifications	40
H.1	Example of buddy system	54
H.2	Position of crew members	55
H.3	Leg sweep procedure	55
R.1	Personal protection equipment	83
R.2	Hand signals	83
Bibliog	raphy	86

Foreword

This Singapore Standard was prepared by the Working Group on Open Water Sport Safety set up by the Technical Committee on Workplace Safety and Health under the purview of the Safety and Quality Standards Committee.

The standard emphasises personal responsibility while ensuring that it also covers the responsibilities of stakeholders, the safety management system, the readiness of locations/facilities, and the adequacies of equipment supplied to the participant(s). Additionally, the standard highlights the open water safety requirements of the common inland and open water sporting activities (as shown in the Annexes) in Singapore.

In preparing this standard, reference was made to the following Singapore Standards:

- SS 681:2022 Code of practice for sport safety
- SS 700:2023 Code of practice for water safety Aquatic facilities.

In addition, the Working Group engaged key stakeholders of open water sports to stipulate minimum requirements for the prevention of injuries and fatalities from open water activities (e.g. recreational, competitive, and educational) that are planned by the public and organised groups.

It is presupposed that in the course of their work, stakeholders will comply with all relevant regulatory and statutory requirements. Some examples of relevant regulations and acts are listed in the Bibliography. The Singapore Standards Council and Enterprise Singapore shall not be responsible for identifying all of such legal obligations.

Permission has also been sought from the following organisations for the reproduction of materials from their publications into this standard:

- 1. International Life Saving Federation (Medical Committee) Figure 1 from the Medical Position Statement MPS 19.
- 2. International Organization for Standardization (ISO)
 - Definitions of Drowning and Competent person from 3.2 and 3.6 of ISO 20380:2017, "Public swimming pools – Computer vision systems for the detection of drowning accidents in swimming pools – Safety requirements and test methods"
 - Definition of Personal flotation device (PFD) from 3.1 of ISO 12402-2:2020, "Personal flotation devices Part 2: Lifejackets, performance level 275 Safety requirements".
- 3. Singapore Dragon Boat Association, Figures H.1, H.2 and H.3.
- 4. Singapore Power Boat Association, Figure 2.
- 5. Sport Singapore, Figures R.1 and R.2 from the Safe waterskiing and wakeboarding guide

Acknowledgement is made for the use of information from the above publications.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all such patent rights.

NOTE

- Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as "mature standards". Mature standards will not be subject to further review unless there are requests to review such standards.
- 2. An SS or TR is voluntary in nature except when it is made mandatory by a regulatory authority. It can also be cited in contracts making its application a business necessity. Users are advised to assess and determine whether the SS or TR is suitable for their intended use or purpose. If required, they should refer to the relevant professionals or experts for advice on the use of the document. Enterprise Singapore and the Singapore Standards Council shall not be liable for any damages whether directly or indirectly suffered by anyone or any organisation as a result of the use of any SS or TR. Although care has been taken to draft this standard, users are also advised to ensure that they apply the information after due diligence.
- 3. Compliance with a SS or TR does not exempt users from any legal obligations.

Code of practice for inland and open water sporting activities

1 Scope

1.1 This standard specifies requirements that are aimed at preventing injuries and fatalities from recreational, competitive, and educational activities planned by the public and organised groups in inland and open waters.

1.2 The objective of this standard is to provide requirements and recommendations for stakeholders to address any health and safety concerns during the use of open water facilities/activity locations and during organised activities/events in an open water environment.

- **1.3** For the purpose of this standard,
- a) open water bodies cover:
 - beach fronts,
 - coastal areas,
 - deep sea,
 - floodplains,
 - lakes,
 - oceans,
 - rivers,
 - sea waters,
 - lagoons, and
 - wetlands.
- b) inland water bodies cover:
 - creeks,
 - ditches,
 - flood ways,
 - monsoon water drains,
 - ponds,
 - quarries,
 - reservoirs,
 - streams, and
 - waterways.

NOTE – In Singapore, access to quarries by the public is not allowed.

1.4 This standard does not cover swimming pools. For provisions for swimming pools, refer to SS 700:2023.

2 Normative references

The following referenced documents are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

SS 681:2022 Code of practice for sport safety