



# Maritime Rules

## Part 80B Commercial Rafting Operations Safety Kayaks

Discussion document  
February 2009



## Invitation to comment

You are invited to comment on this discussion document prepared by Maritime New Zealand (MNZ) in consultation with the New Zealand Rafting Association (NZRA).

This document describes the role of safety kayakers supporting commercial rafting trips and the skills and experience required of those safety kayakers.

The purpose of this work is to develop a consistent approach to the application and selection of safety kayakers involvement with commercial rafting trips. This could be achieved by way of a guideline incorporated in Maritime Rule 80B as an advisory circular or the establishment of a qualification for safety kayaking.

Closing date for comments is 4 May 2009.

## The current situation

Commercial rafting operations in New Zealand and internationally have been using the services of safety kayakers for many years. However, to date there is no formal structure surrounding the selection, skills or experience required to perform the function of a safety kayaker.

For commercial raft operations on some Grade 4/5 rivers in New Zealand, the use of a safety kayaker is a standard part of the day-to-day operation, while for other Grade 4/5 rivers they are used only during certain higher flows. In some operations, they are used instead of a second raft when there are only a few passengers.

Kayak photographers and kayak videographers are also engaged on commercial raft trips to provide a media service and in some situations to provide an additional on river safety service (eg on the Rollercoaster rapid, Wairoa River)

In Maritime Rule Part 80 there is provision for the use of safety boats detailed under Clause 4.2 (vi)(bb) listed under the content of the safe operational plan.

### 4.2 Content of safe operational plan (SOP)

#### 4.2 (vi) on river management

4.2 (vi)(bb) it may include details of safety boats, ways of dealing with specific hazards, scouting, and driver responsibility.

Under this clause the operator may detail the use of a safety kayak as a means of contributing to the on river management of the rafting trip.

In providing support for a raft trip a safety kayaker may fulfil the following functions. This list is not exhaustive because there are numerous ways in which a safety kayak may contribute to the safety of a rafting trip.

- Probing rapids on infrequently rafted rivers – by running first to identify the most efficient line for a raft.
- Positioning above or below hazards to assist and provide guidance to any potential swimmers.
- Maintaining proximity to rafts to assist swimmers back to the raft if required through verbal instruction, carriage or towing.
- Retrieve dropped paddles and equipment.
- Provide downstream containment by ensuring that they access the furthest down stream swimmer.
- Ability to access small eddies to assist in a rescue situation.

To date the rafting industry has generally been proactive in the use and function of safety kayakers, although there is no prescriptive use for a safety kayaker in Rule Part 80. Several operators have

instigated the use of a safety kayaker, particularly those who are familiar with the safety benefits provided by a kayak.

A common use of a safety kayaker is on continuous flow rivers where there is the potential for a swimmer to be washed into the next rapid if not retrieved from the river.

The annual SOP audit process includes a focus on the appropriate use of safety kayakers. This includes identifying the requirement for a safety kayaker for particular rivers or for select rivers at higher flow, requiring safety kayaker position descriptions and safety kayaker SOP induction.

The guidance for the use of a safety kayaker during the audit process is based on the MNZ safety auditor adventure tourism's experience in the rafting sector and familiarity with the range and function of safety kayakers on particular rivers in New Zealand. The decision to incorporate a safety kayak into an SOP is done through consultation with the owner and guides and through discussion with the greater rafting industry.

Rafting operations have identified a number of rivers where safety kayaks are mandatory. These decisions have been supported by MNZ.

To date if MNZ has advised that a safety kayaker is to be used this has been instigated under Rule Part 80.4.1(b).

Under this clause, where safety practices specific to an individual river are considered to be necessary by the rafting operator or authorised person or representatives of river guides, these must be established by a consultative process. This process involves all operators using the river, authorised persons and representatives of guides. The consultative process may be initiated by any one of the parties. Once established, the safety practices become a requirement of all safe operational plans on that river.

## Examples of safety kayak use

Outlined below are examples of operational requirements regarding the use of safety boats to support commercial rafting operations established for the Kaituna and Rangitaiki Rivers using clause 80.4.1(b). Also below is a list of some of the rivers which frequently involve the use of safety kayaks. In the case of the Kaituna River, a safety boat refers to a kayak, river sledge or guide raft.

### Kaituna River

The following "safety boat" definition applies only to the Kaituna River.

**"Safety boat"** – means a kayak, river sledge, or a raft guided by an appropriately trained guide which carries other trainee guides. A kayak or sledge functioning as a safety boat on the Kaituna River must be under the control of someone qualified to at least the level of a National Raft Guide Grade 3 as well as being appropriately skilled, experienced and equipped to be able to safely navigate in support of the commercial rafting trip. A raft functioning as a safety boat on the Kaituna River must be under the control of a minimum of a National Raft Guide Grade 4/5 who has been assessed as capable of carrying trainee raft guides, or other guides on the river and performing the required safety functions. There must be no passengers in the safety raft.

On the Kaituna River if there is only one raft guide in the lead raft there must be a safety boat accompanying the raft trip as defined above. If there are two guides in the lead raft the safety boat is not required. The safety boat must be positioned down stream of Tutea Falls prior to the rafts running the waterfall. At the Powerhouse/Weir rapid the safety boat must be positioned below the power house drop and either above or below the weir.

## Rangitaiki River

On the Rangitaiki River the maximum high water level is 9.5 on the gauge. An additional safety kayaker or safety raft must be used at 8 on the gauge and above. The safety kayaker must be suitably skilled, experienced and equipped and is recommended to be a minimum of 18 years of age. A safety raft must be under the control of a minimum of a National Raft Guide Grade 4/5 and be crewed by trainee guides or other guides.

The safety kayaker is not required to hold a national raft guide award. Some operators may require the safety kayaker to hold a raft guide award but this has not been unanimously agreed to by all the operators because it has been identified that there are several highly skilled and experienced kayakers capable of performing the safety kayak function who are not qualified raft guides.

## Wairoa River

A safety kayak, photo kayaker, river sledge or safety raft as defined above is required to cover the lead raft running the roller coaster rapid. If there is standing safety covering the undercut below the rollercoaster rapid then on river cover from a safety boat is not required.

## Shotover River

A safety kayaker accompanies all raft trips on the grade 4/5 section.

## Perth River

A safety kayaker accompanies all raft trips on the grade 4/5 section.

## Whataroa River

A safety kayaker accompanies all raft trips on the grade 4/5 section.

## Karamea River

A safety kayaker accompanies all raft trips on the grade 4/5 section.

## Rangitikei River

Safety kayaker or safety raft accompanies all raft trips with river flow of 20 cumecs or above

## Mohikinui River

A safety kayaker accompanies all raft trips on the grade 4 section

## Safety kayakers and commercial rafting

To date there is no prescriptive requirement for the qualification, skills and experience required of a safety kayaker. Several operators require that the safety kayaker is also a qualified raft guide capable of guiding the raft on the grade of river rafted on, which in the cases outlined above would be a minimum of a national raft guide grade 4/5 award.

However, there are a number of highly skilled and experienced kayakers who are not raft guides. The rafting sector therefore has not set itself the prescriptive requirement to have all safety kayakers qualified as raft guides. It is commonly agreed that a kayaker must be familiar with being on the river around rafts. A highly skilled kayaker who has a lot of local knowledge and familiarity with a particular river is invaluable, particularly if the river is not rafted frequently.

In recent years there have been a number of safety kayakers, both raft guide and non-raft guide qualified, participating in the annual rescue workshops facilitated by the NZ Rafting Association (NZRA). For safety kayakers to be as effective as possible they must understand rafting with regard to the manoeuvrability and navigational capabilities of a raft, as well as how to contribute effectively in a raft rescue situation. Being a skilled kayaker alone does not make for an effective safety kayaker.

At the 2007 NZRA river rescue workshop a number of the leading safety kayakers further consolidated safety kayaking for commercial rafting through facilitated discussion amongst the raft guide participants. This led to the identification of skills and equipment considered by the group to be key requirements for effective safety kayaking.

Outlined below is a summary of the safety kayak outcomes for consideration:

### Role of safety kayaker

To work within the rafting safe operational plan, be familiar with the specific river plan and support the rafts.

### Requirements of a safety kayaker

- Safety of passengers
- Rescue swimmers (ones in most danger first)
- Downstream containment
- Head count – awareness of raft numbers and passenger numbers in each raft
- Retrieve equipment
- Personal safety first
- Paddle out for help if required
- Know personal limitations
- Know the river and be familiar with specific hazards
- Understand river NZRA recognised signals and company specific signals
- Pass on information regarding safe lines and hazards to raft guides
- Assist in raft rescue situations to comparable levels as raft guides.

### Skills and experience

- Be a highly skilled grade 5 kayaker capable of scouting, reading and running rapids without input or guidance from others
- Be able to direct a raft efficiently through a complex rapid by use of signals
- Ability to seal launch from a height
- Ability to enter and exit kayak in difficult places which a high level of balance and coordination
- Ability to perform complex portaging
- Ability to transport paddles
- Ability to carry passengers on the front and rear deck
- Ability to combat roll whilst maintaining support of the swimmer
- Ability to retrieve and re-right an abandoned raft which may be washing downstream and maintain the kayak
- Ability to retrieve a wrapped raft
- Ability to get a rope across the river by paddling or throwing
- Ability to participate in raft rescue situations with comparable skill level to qualified raft guides
- Ability to tow an unconscious victim to shore
- Ability to provide first aid.

### Equipment

- Kayak with sufficient volume to reduce risk exposure to the paddler
- Kayak with sufficient volume to perform front and rear deck carries
- Bow and stern toggle arrangement to enable combat rolling while passenger still maintaining contact
- Airbags or sufficient flotation to enable an abandoned kayak to be retrieved efficiently
- Spare paddle
- Tow line and webbing sling in accessible reach
- Knife
- Whistle
- Throw bag
- Minimum 2 karabiners
- Minimum 2 prussic cords

- Personal first aid kit.

In essence a safety kayaker can be defined as:

A highly skilled and competent kayaker with rescue training applicable to rafting and a high degree of local river knowledge, which enables the paddler to operate independently and in support of rafts. A safety kayaker is used on select Grade 4/5 rivers to assist rafts in determining safe lines, assisting swimmers, retrieving paddles and equipment . Safety kayakers can also provide cover for specific rapids, remaining on standby to chase and rescue swimmers or flipped rafts, or being ready to deploy throw bags or ropes to protect swimmers from hazards.

## Summary of rafting accident

In 2004 on the Shotover River there was a passenger fatality resulting from heart failure. The passenger had a reasonably long swim. The passenger was thrown into the river from a flipped raft. The safety kayaker was in close proximity. At least two passengers were holding the kayak when it capsized. The safety kayaker was unable to eskimo roll and eventually swum from the kayak.

The subsequent Maritime Safety Authority accident report (MSA Report Number 04 347) on this passenger fatality on the Shotover River in March 2004 made the following recommendations:

- *Safety Kayakers should attend rescue training, NZRA River Rescue, Swiftwater Rescue 3, company in-house training or any river rescue training that will build on their base skills.*
- *The role of a Safety Kayaker is to provide positive reassurance, directions and advice for swimmers in different situations.*
- *Safety Kayaker priorities: threatening swimmer situation and downstream priority.*

Also, the report recommended that NZRA workshops explore the possibility of safety kayakers having webbing attached to their grab loops for swimmers to hold on to. This may give the safety kayaker the option to eskimo roll while swimmers are holding their boat.

## Conclusion

Safety kayaking is often a lonely and demanding role, probing rapids, protecting swimmers from various hazards and responding to rescue of people and paddles. It has long been considered that the safety kayaker must have the required skills and be in a kayak with an appropriate volume for any potential rescue tasks which may have to be performed, including the carriage of airbags, rescue gear and first aid kit.

It is the operator's responsibility to ensure that any safety kayaker is properly and fully inducted into the safe operational plan of the rafting company. Furthermore because the safety kayaker is employed or engaged as a contractor or volunteer the operator has a responsibility under the Health and Safety in Employment Act 1992 to ensure that the person has the required training, skills and experience to perform the functions required.

If a rafting operator is not a kayaker or does not have any staff who are kayakers decision-making about the employment of kayakers may be less robust than the decisions made by an operator who is skilled and experienced in kayaking.

There is no national qualification structure for safety kayakers. The NZRA and Skills Active have developed and administer the National raft guide awards whereas New Zealand Outdoor Instructors Association (NZOIA) has established kayak instructor qualifications, but nothing that resembles a qualification for a safety kayaker.

## Safety kayak strategy

Options to consider in regard to the establishment of consistency in the skills and experience required for the selection of safety kayakers could include:

- NZRA in conjunction with Skills Active and MNZ establish a guideline for skills, and experience required for safety kayaker. The guideline could be incorporated in Rule Part 80B as an advisory circular.
- NZRA in conjunction with Skills Active establish a qualification for safety kayaking drawing on kayak expertise from NZOIA or other kayaking organisations to ensure that the skills and experience required of a safety kayaker qualification is robust and achievable.

## Additional guidance

The use of a photo/video kayaker as a safety kayaker to be rationalised within the safety kayaking requirements while recognising that there may be places on a river where the services of a safety kayaker are not required and media services may be offered. On specific rapids where an on river safety kayaker is required then no media services to be offered. A photo/video kayaker in this role must meet all the skills, experience and qualification requirements of a safety kayaker.

## Feedback

Please provide feedback on the skills, experience and options for the development of a consistent approach to the application and selection of safety kayakers involvement with commercial rafting trips.

Please direct any feedback by **4 May 2009** to Maritime New Zealand addressed to:

Colin Sonneveld  
**Safety Auditor Adventure Tourism**  
MARITIME NEW ZEALAND

DDI 07 5474193  
Cellphone 0275 964271  
Wellington 0508225522  
Fax 07 5752083

PO Box 5288  
Mt Maunganui

colin.sonneveld@maritimenz.govt.nz