

Commercial Houseboats

Operation of multi-deck hire-and-drive
houseboats in NSW

1. Purpose

- 1.1 NSW Maritime supports the operation of hire-and-drive houseboats with more than one enclosed deck (“multi-deck hire-and-drive houseboats”), provided they meet appropriate marine safety standards.
- 1.2 This procedure outlines specific marine safety standards required before a NSW survey permit may be issued for a multi-deck hire-and-drive houseboat. These standards are in addition to general NSW survey requirements for commercial houseboats, and to applicable NSW or Commonwealth law.
- 1.3 Commercial vessels from interstate may also operate in NSW under a Certificate of Recognition of their interstate survey permit. In accordance with National Marine Safety Committee’s “mutual recognition” agreements, NSW Maritime will recognise an interstate survey permit for an equivalent class of vessel provided that the vessel complies with the relevant provisions of the current *USL Code*.

2. Background

- 2.1 The NSW *Commercial Vessels Act 1979* requires that commercial vessels registered in this State operate under a vessel survey permit issued by NSW Maritime. NSW Maritime’s survey standards are generally drawn from the *Uniform Shipping Laws (USL) Code*, though other standards may be applied from time to time.
- 2.2 Multi-deck hire-and-drive houseboats have not traditionally been permitted to operate in NSW, despite a history of their operation in other jurisdictions. However, NSW Maritime did permit their operation under “mutual recognition” agreements with other States.
- 2.3 The general restriction on NSW survey for these vessels was reviewed by NSW Maritime in late 2008. The review considered incident statistics, recent improvements to houseboat design and safety features, and interstate experience. The safety history of multi-deck hire-and-drive houseboats in NSW waters under “mutual recognition” schemes was also considered.

- 2.4 A public comment period over summer 2008-09 generated 13 submissions on the issue, with ten in favour of granting survey permits for these vessels, two neutral and one opposed. Comments were also made on applicable safety standards.
- 2.5 After considering submissions received, NSW Maritime determined to approve the issuing of NSW survey permits for hire-and-drive houseboats with more than one enclosed deck, subject to certain safety requirements outlined in section 4 below. This approval takes effect from 1 July 2009.

3. Related materials

- 3.1 This procedure should be read in conjunction with the documents referred to in Appendix B, and with any other relevant NSW Maritime policies and procedures.
- 3.2 If NSW Maritime is obliged by law to act or omit to do something, it may determine to depart from this procedure to the extent necessary to comply with its legal obligations.
- 3.3 This procedure is effective from 1 July 2009. It replaces all previous procedures, guidance notes or directives in relation to matters covered by this procedure, to the extent of any inconsistency.

4. Standards

- 4.1 NSW Maritime may issue a NSW survey permit for a hire-and-drive houseboat with more than one enclosed deck, subject to the safety standards outlined in this section and those applicable to other commercial houseboats under the *Commercial Vessels Act 1979*.
- 4.2 NSW Maritime will also consider alternative proposals which achieve or exceed the level of safety inherent in these standards, as provided for by the *USL Code*.

TABLE 1: APPLICABLE STANDARDS

Issue	Description	Requirements
Structural issues	Increased weight of 2 nd deck structure places additional stresses on the structural elements of the houseboat	<p>Structure assessed to loadings derived from AS 4132.1 – 1993.</p> <p>Aluminium structure assessed to AS 4132.2 - 1993, with the following factors of safety (FOS):</p> <ul style="list-style-type: none"> • 1.65 for accommodation; and • 1.0 for cross structures. <p>Steel structure assessed to AS 4132.2 -1993 as amended for steel properties, with the following FOS:</p> <ul style="list-style-type: none"> • 1.95 for accommodation; and • 1.0 for cross structures. <p>Glass Reinforced Plastic structure assessed to USL 2008 – Section 5H – Construction, which adopts AS 4132.3 – 1993, with the following FOS:</p> <ul style="list-style-type: none"> • 3.5 for accommodation; and • 5.5 for cross structures (concession may apply on case by case basis). <p>Timber structures to meet USL Code Section 5M – Wood.</p> <p>Roof and external wall structure assessed to first principle beam theory.</p> <p>Close scrutiny of transverse strength and potential racking deformation.</p> <p>Spas and point loading assessed using first principles for column buckling.</p> <p>Windows to meet Building Code of Australia with design loading from AS 4132.1 – 1993.</p>

Issue	Description	Requirements
Handling and windage	<p>Windage and displacement associated with a second deck magnifies these problems, particularly when anchoring and manoeuvring</p> <p>The relative inexperience of hirers may generate an increased handling and manoeuvring risk</p> <p>Poor manoeuvrability and susceptibility to windage may impact on other users of a waterway.</p>	<p>Instructions (including practical experience) to be given to the hirer and any other potential operators, in accordance with <i>Commercial Vessels (Hire and Drive) Regulation 1986</i>, clause 15(1).</p> <p>The vessel should not exceed 75m² of side profile area above the waterline and a fully laden displacement of 40 tonnes.</p> <p>The anchor and chain required are to be assessed on case by case basis considering factors including depth of water, prevailing conditions and windage:</p> <ul style="list-style-type: none"> • If the anchor required is 30-50kg, a mechanical winch is also required in accordance with USL Code 2008 Section 13, Appendix H; • If the anchor required is >50kg, an electrical winch is also required and is to be operated from the steering position in accordance with USL Code 2008 Section 13, Appendix H. <p>Visibility to be in accordance with USL Code Sub-section 18.5.7.7. Refer to the NMSC's Guidance Circular 05-1 Tinting of Navigational Space Windows.</p> <p>Geographic restrictions may be imposed by declaration in the NSW Government Gazette, limiting or excluding the operation of commercial multi-storey houseboats in certain heavily trafficked waterways.</p>

Issue	Description	Requirements
Structural fire protection	The requirement for internal stairways for emergency escape raises specific fire protection issues	<p>USL Code Sub-section 18.5.1.4 requires structural fire protection measures to the satisfaction of NSW Maritime. These requirements are satisfied by USL Code 2008 Sub-section 5F and “Guideline for NSW Maritime’s interpretation of Section 5F (Structural Fire Protection) of the USL Code”.</p> <p>In addition internal stairways (ie where access between decks is through the accommodation area) that penetrate a single deck shall be closed at one level by basic fire protection division, having a time rating of at least 30 minutes, with self closing doors magnetically activated in case of fire.</p>
Stability	Given the inherent stability of twin pontoon houseboats, this mainly relates to monohulled houseboats with more than one enclosed deck	<p>Meet USL Code Sub-section 18.5.7.1.3.</p> <p>In the case of twin pontoons a stability test will be conducted on the highest possible deck with all persons authorised to be on-board the vessel.</p> <p>Monohull houseboats with accommodation on the upper deck may be required to undergo a Category R stability assessment.</p>
Multiple steering positions	The existence of multiple control stations means that the vessel could be controlled (accidentally or deliberately) by a person other than the current operator	The vessel is to be fitted such that one station only is operable at any one time.

Issue	Description	Requirements
Means of escape	<p>Sub-section 18.5.1.2.1(d) of the USL Code 2008 requires houseboats to have 2 means of escape</p> <p>A means of escape involving jumping out of windows from the <u>upper</u> deck, sliding down poles are not sufficient to meet the requirements of this section.</p>	At least 2 adequate means of escape in emergency situations in accordance with USL Code 2008 Sub-section 5E.6 (eg stairs and ladders where appropriate).

5. Review

5.1 This procedure will be formally reviewed in 2014.

Appendix A: Houseboat statistics¹

Vessel numbers

- There are approximately 150 commercial houseboats in NSW, with concentrations plying the middle reaches of the Murray River, the Hawkesbury and Tweed Rivers and the Myall Lakes system.
- There are approximately 110 commercial houseboats in Queensland, with concentrations in the Cairns, Hervey Bay, Mooloolaba, Townsville and Gold Coast areas.
- There are approximately 300 commercial houseboats in South Australia, with concentrations on the Murray River from Mildura to Lake Alexandrina.
- There are approximately 25 commercial houseboats in Victoria, with concentrations on the Murray River from Mildura and Cobram, on Lakes King and Eildon and on the Mallacoota Inlet.

Vessel incidents

- Since 1992 there have been 44 reported commercial houseboat incidents on NSW navigable waters. There were 89 reported commercial houseboat incidents in Queensland between 2001 and 2007. It should be noted that there are currently approximately 30% more commercial houseboats registered in NSW than in Queensland.
- The NSW incidents have resulted in 4 fatalities and 9 injuries, 5 of these being major injuries. The incidents on Queensland navigable waters have resulted in 2 injuries, both minor.
- In both NSW and Queensland moderate or strong winds were involved in approximately 20% of incidents. Of these incidents, and in both states, approximately 25% were associated with anchor drift.
- In Queensland 18% of the incidents involved difficulties in manoeuvring the houseboat and the corresponding figure for NSW was 27%.
- There was 1 incident involving a fire in each state with 1 “fall from deck” or “fall overboard” in Queensland and 3 such incidents in NSW.

¹ Sources: Queensland, South Australian, Victorian and NSW navigation safety regulators, July 2008.

Appendix B: Regulatory Context

B.1 Commonwealth Legislation


- The *Uniform Shipping Laws (USL) Code* is an Order under the Commonwealth *Navigation Act 1912*.
- Section 18 of the *USL Code* relates to commercial vessels, including houseboats, which are the specific subject of Sub-section 18.5.7. This section has been reproduced as the *USL Code 2008 Section 18: Hire and Drive Vessels* which was implemented in NSW on 1 October 2008.
- Clause 1.2.8 of the *USL Code 2008* defines a houseboat as any mechanically propelled boat, vessel or pontoon having a fixed house above the deck to provide overnight accommodation.

B.2 Interpretations of the USL Code 2008 and interstate standards

- The *USL Code 2008* is silent about the appropriate maximum height of houseboats and does not incorporate any special provisions for houseboats with more than one enclosed deck.
- NSW Maritime has previously interpreted Section 18 as restricting the fixed house component to one enclosed deck. Accordingly, houseboats with a fixed house comprising more than one enclosed deck have not been issued with a survey permit in NSW.
- Navigation safety regulators in Queensland and South Australia permit the operation of commercial houseboats with more than one enclosed deck. These two states have not agreed to *USL Code 2008* and currently the South Australian Department of Transport issues a Certificate of Inspection which is based on a schedule of houseboat provisions specific to that state. The *USL Code* is not mandatory in Queensland where commercial houseboat designs are accepted by Marine Safety Queensland if they are prepared by an accredited designer.
- This departure from the *USL Code* has resulted in mutual recognition issues in relation to certain houseboats being issued with Certificates of Recognition to operate on NSW navigable waters.

B.3 *NSW Legislation*

- The *Commercial Vessels Act 1979* requires that commercial vessels registered in NSW must operate under a vessel survey permit issued by NSW Maritime.
- Section 18(1A) of the Act provides that NSW Maritime may issue a survey permit on such conditions or restrictions as it considers appropriate. NSW Maritime generally applies the *USL Code* in determining whether to issue a survey permit.
- Section 48 of the Act provides that NSW Maritime may also issue an exemption from all or part of the Act, to a vessel or class of vessels.
- Commercial vessels from other States may also be operated in NSW under a Certificate of Recognition of their interstate survey permit. In accordance with the National Marine Safety Committee's mutual recognition agreements, NSW Maritime will recognise an interstate survey permit for an equivalent class of vessel provided that the vessel complies with the relevant provisions of the current *USL Code*.
- Under the *Maritime Services Act 1935* and its *Water Traffic Regulations – NSW*, a person may operate a vessel, including a houseboat of any size, on navigable waters without a boat driver's licence provided they operate it at less than 10 knots. If the person wishes to operate at 10 knots or greater they must hold a valid boat driver's licence.



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