Australian Government
Australian Maritime Safety Authority

GUIDANCE NOTICE

Initial Survey

Initial survey means the process by which a vessel is inspected for the first time to determine if it meets the requirements of the NSCV or other standards that apply to the vessel under *Marine Order 503 (Certificates of survey – national law) 2013*.

Generally, initial survey is required for all new vessels (unless otherwise exempt).

The terms 'new vessels' and 'existing vessels' are defined in Marine Order 503.

Generally, this means that initial survey is required:

- for all new vessels (unless otherwise exempt)
- for an existing vessel (that is subject to survey) that has been altered to an extent that it must be reassessed against the construction, subdivision or stability standard that applies to it; or
- where an existing vessels operations have changed so that there is an increased level of risk; or
- where an existing vessel changes its operational area.

Applying for a certificate of survey

An application using the form, AMSA521 – Application for certificate of survey for a domestic commercial vessel, must be completed and submitted to a Delegate.

Phases of initial survey

The process of undergoing initial survey is divided in to three phases - design phase, construction phase and commissioning phase (see clause 3.3 of the National Standard for the Administration of Marine Safety (NSAMS)).

The design phase is the process by which the overall concept and detailed design of the vessel is reviewed and verified against the required standards (that are set down in section 8 of Marine Order 503).

The design phase may include but is not limited to the review of plans, design calculations and building specifications.

Delegates may choose to accept a design approval undertaken by an authorised Class society (otherwise known as recognised organisations).

We strongly recommend that design documentation (plans, calculations and specifications) need to be accurate representations of the vessel, be of high quality, legible and in English.

Experience suggests that a poor quality submission may delay or prevent approval. The importance of a high quality submission cannot be overstressed.

High quality submissions are most often best achieved by engaging a specialist naval architect or consultant that is experienced in the type of vessel you are seeking to bring into operation. Plans are used to:

- ensure a vessel complies with applicable standards;
- to verify they are maintained over time; and
- to provide important safety information to those responsible for the safety of the vessel.

Plans, specifications and data sheets are to be submitted as required by the Delegate. You should check with your local Delegate and agree the submission method early in the process.

Design phase approval will be conducted in accordance with the requirements of the NSAMS. The following table of plans is indicative of the kind of plans likely to be required for plan approval.

The extent and content of the information and plans needed by the National Regulator to verify compliance with Marine Order 503 and the applicable standards (e.g. National Standard for Commercial Vessels (NSCV), Uniform Shipping Laws) will be dependent on categorisation, size and type of vessel. The following table may be used as a general guide:

Item	Description of content	Typical application
General arrangement plans	Tanks, deck openings, seating, berths, bulkheads, access ways, bulwarks and railings, navigation lights, ventilation openings, ballast, buoyancy material, use of each space, watertight closing appliances, life-saving appliances	All vessels
Construction plans and/or specifications	Transverse and longitudinal sections, bulkheads, decks, superstructure, deckhouses, engine girders, scantlings, material details, fastening/welding/layup details, windows and window frames	All vessels
Lines plan	Body plan, sheer plan, draft marks and location of watertight bulkheads	All vessels with comprehensive stability or subdivision
Plans or specifications for closing devices	Construction and means for securing watertight or weathertight openings liable to downflooding	All vessels
Piping schematics	Essential and high risk systems including bilge, fuel, sanitary, engine exhaust, refrigeration and steam; showing valves, vents, overflows, filling stations, pipe materials, diameters and wall thicknesses	All vessels
Fire protection	Type and disposition of fire divisions, fire-extinguishing appliances, location of escapes	All vessels
Rudder and steering gear plan	Rudder, rudder stock, bearings, coupling, steering gear and alternative method of steering	All vessels
Shafting plan	Propeller shaft, bearings and couplings, stem tube, propeller brackets, engine and thrust seatings	All vessels
Construction schedule	Time schedule for building, laminating and welding to determine key milestones for inspections	All vessels
Electrical schematic	Electrical equipment and wiring, protection devices (overload, low voltage), emergency power arrangements	32 Volts and more, or vessels required to fit emergency power arrangements
Sail plan	Location and size of sails and underwater profile of vessel	Sailing vessels
Machinery arrangement	Arrangement and function of main and auxiliary machinery (may be incorporated on general arrangement plan)	All vessels
Fire control plan	Location and type of active and passive fire safety systems on board the vessel, control stations, location of divisions, fire alarms, fire detection and extinguishing systems, fire-extinguishing appliances, access to compartments and decks, ventilating systems, location of international shore connection if fitted, fire suits, breathing apparatus	Vessels 35m and more and passenger vessels 25m and more
Emergency plan	Assembly stations, signals, escape routes, evacuation routes, location of life saving equipment, flares, EPIRB, lifebuoys, immersion suits. On vessels of length less than 50 metres, the damage control, fire and emergency plans may be combined in a single drawing	Vessels 35m and more and passenger vessels 25m and more
Intact stability	Particulars of vessel, information in accordance with Part C Subsection 6A	All vessels subject to intact stability criteria
Damaged stability	Calculations and information showing the nature of damaged stability criteria and the vessel's compliance with those criteria	All vessels subject to damaged stability
Manuals	Operating, maintenance and training manuals	Fast Craft
Failure mode and effect analysis	Essential machinery and systems	Fast Craft
Other plans or diagrams that reflect the configuration, equipment or safety system/s on the vessel may also be required by the National Regulator.		

NOTE: Some of these plans and information may not be needed for smaller vessels. Further advice can be obtained by contacting the National Regulator or your local Delegate.

Construction phase inspections

A surveyor must be engaged to survey prior to and during vessel construction and will provide feedback to the client along the way.

The surveys must be conducted by the National Regulator, an accredited marine surveyor or a person who the National Regulator is satisfied is competent to survey the vessel. The lists of accredited surveyors is available on the AMSA website.

Experience has shown that it is critical that all parties form a collaborative working relationship to ensure a steady progress towards certification.

The program of inspection during construction will vary for each vessel and must be established and agreed between the vessel representative and Delegate prior to construction of the vessel commencing.

The following is an indication of the inspection intervals required:

Inspection intervals

An indicative inspection regime might be as follows:

Pre-commencement inspection of site, builders qualifications etc *prior to build commencement*
Keel voids prior to closing off, or mould preparation for Fibre Reinforced Plastic (FRP) construction
Approximately 20% hull completion including reinforcement layers of FRP
Approximately 80% hull completion including framing of FRP hulls
Piping/wiring and other systems installations
Hull thickness testing for FRP
Fuel tank pressure testing
Propeller shafting and components
Buoyancy fitting
Rudder stock and components
Engine and thrust seatings
Accommodation spaces prior to lining
Machinery, propulsion system, piping and electrical systems

Commissioning phase

The commissioning phase of initial survey is the process by which the vessel and its systems are trialled and or tested to ensure the vessel functions as designed and meets the applicable standards.

This process may include, but is not limited to, trials and tests of the vessel (including stability) and systems essential to safety, and verifying the quantity, type and availability of safety equipment and safety information.

Stability

As a part of the commissioning phase, copies of the vessels stability documents (Trim & Stability Book) that have been prepared by a naval architect are to be provided to the Delegate in support of the surveyors recommendation for the issue of a Certificate of Survey. These will be checked for accuracy and suitability by an appropriate person and stamped accordingly.

Copies of the approved stability documentation (Trim & Stability Book) are also to be provided to the owner and surveyor for their records.

Load Line Certificates

Generally, Marine Order 507 requires Class 1 and 2 vessels over 24m to have a loadline certificate. If you are intending bringing a vessel in either of these categories into commercial operation please discuss the process for assigning a load line with your local Delegate and the accredited surveyor as the process is usually undertaken during the initial survey phases.

Vessels having previously held valid certification which has expired

An expired Certificate of Survey does not guarantee the condition of the vessel or compliance with the NSCV. The extent and depth of survey and updating requirements for vessels having previously held valid certification will be determined on a case-by-case basis and will depend on whether the vessel is a new or existing vessel in accordance with *Marine Order 503 (Certificates of survey – national law) 2013*.

This will take into account: the vessel's present condition and fitness for purpose; how long it has been since the certificate expired; the quality and provision of survey information available; the size of the vessel and nature and area of the proposed operation; and other general risk factors.

If you are contemplating returning an expired vessel to survey, you are strongly advised to get an independent assessment by a surveyor or naval architect experienced in commercial vessel survey and operations. This service is not available from National Regulator Delegates.

Vessels having not previously held valid certification

Delegates cannot guarantee and are generally unable to advise whether vessels constructed without undergoing the three initial survey phases or not having held valid certification will be acceptable for commercial operation.

It is recommended that an accredited marine surveyor (that is accredited in the initial survey categories) be engaged by the applicant to provide a submission to a Delegate for consideration:

Generally speaking, vessels not previously holding valid certification will require the same plan submission requirements as for new vessel construction.

- Timber, steel, FRP and aluminium vessels may require internal linings and fit out removed to the extent required by the accredited marine surveyor or Delegates to reasonably ascertain construction and condition inspection.
- FRP vessels may, in addition, require samples of the hull removed for testing at the owner's expense. This and other forms of destructive testing are likely to be specified and may damage the vessel requiring costly repair.

Experience has shown that the process of bringing anything other than the simplest of already built vessels into commercial survey is expensive, intrusive and may fail at any stage. Persons contemplating this option are advised to contact an independent expert for an in-depth analysis before approaching Delegates. Delegates are unable to provide this service.

Further information on bringing a vessel into commercial operation may be found at www.amsa.gov.au.

Note this notice is intended for guidance only and must be read in conjunction with the National Law, Marine Orders, NSAMS and the NSCV at all times.

References

- *Marine Safety (Domestic commercial vessel) National Law Act 2012;*
- *Marine Order 503 (Certificates of survey – national law) 2013;*
- Relevant parts of the National Standard for Commercial Vessels; and
- National Standard for the Administration of Marine Safety – section 4 Surveys of Vessels
- *Marine Order 507 (Load line certificates – national law) 2013*.