



USCG Office of Commercial Vessel Compliance (CG-CVC)
Mission Management System (MMS) Work Instruction (WI)



Category	Domestic Vessel Inspection				
Title	Small Passenger Vessel Risk-Based Inspection Program				
Serial	CVC-WI-028(2)	Orig. Date	14 Jun 21	Rev. Date	17 Dec 24
Disclaimer	This guidance is not a substitute for applicable legal requirements, nor is it itself a rule. It is not intended to nor does it impose legally-binding requirements on any party. It represents the Coast Guard's current thinking on this topic and may assist industry, mariners, the public, and the Coast Guard, as well as other federal and state regulators, in applying statutory and regulatory requirements. You can use an alternative approach for complying with these requirements if the approach satisfies the requirements of the applicable statutes and regulations. If you want to discuss an alternative approach (you are not required to do so), you may contact the Coast Guard Domestic Vessel Compliance Division (CG-CVC-1) at cgcvc@uscg.mil who is responsible for implementing this guidance.				
Change Summary	<ul style="list-style-type: none"> • Clarified explanation of risk model • Removed content pertaining only to internal Coast Guard procedures 				

- A. PURPOSE. To describe the small passenger vessel (SPV) risk-based inspection program.
- B. ACTION. All Coast Guard personnel responsible for conducting marine inspections should adhere to this instruction when conducting inspections on vessels inspected under title 46 Code of Federal Regulations (CFR) subchapters K or T, except:
1. Vessels enrolled in the Streamlined Inspection Program;
 2. Vessels certificated under multiple inspection subchapters;
 3. Offshore supply vessels and oil spill recovery vessels inspected under 46 CFR subchapter T; and
 4. Passenger barges.
- C. BACKGROUND.
1. The understanding of a vessel's risk profile has traditionally relied on local inspectors' first-hand experience with that vessel or its operator. Furthermore, the assignment of marine inspectors has traditionally been at the discretion of the Officer in Charge, Marine Inspection (OCMI). Coast Guard enterprise data tools offered the ability for units to analyze marine casualty, deficiency, and vessel characteristic data for an improved understanding of risk, but efforts were inconsistent and localized. The fire and sinking of the dive vessel *CONCEPTION* caused the Coast Guard to reevaluate how vessel risk profiles are understood and how best to use marine inspectors to minimize risk. The SPV risk-based inspection program described in this procedure is intended to improve risk assessment by using data from across all marine inspection zones and to improve consistency of resource allocation.
 2. Improvements in data driven risk assessment and resource management go hand-in-hand with other targeted initiatives such as annual focus areas, concentrated inspection programs, rulemaking projects, and marine inspector training to minimize risk of marine casualties across the country.
 3. Risk is defined as the probability of an adverse event occurring coupled with the potential severity of its consequences. Adverse events in the marine transportation system include incidents that involve death, total vessel loss, significant injury, significant property damage, or significant environmental damage. Likelihood of such an incident is estimated using regression analysis of historical data.
 4. Nothing in this work instruction relieves a vessel owner or operator of the responsibility for complying with the inspection requirements in title 46 U.S. Code or 46 CFR, including the requirements pertaining to initial, COI renewal, and annual inspections and drydock and internal structural examinations.
- D. RISK ASSESSMENT.
1. CG-CVC is responsible for developing and maintaining a risk model that estimates the probability that a vessel will experience an adverse event and the potential severity of an adverse event's consequences.

- i. *Probability*. The probability factor is determined from a vessel's own record as well as the history of vessels with similar characteristics. It is computed using a combination of supervised machine learning and subject matter expert input to analyze data from Marine Information for Safety and Law Enforcement (MISLE). A vessel's score does not solely reflect the performance or condition of that vessel.
 - ii. *Consequence*. The consequence factor uses weighted values that reflect the level of effort needed to respond to an adverse event. For example, a vessel with more passengers would require more response resources than a vessel with less passengers. Similarly, a vessel operating 50 miles offshore would require a larger cutter or longer range aircraft and would take more time to respond.
 - iii. *Total risk score*. The probability and consequence factors are combined to form the total risk score. Each vessel is then assigned one of three categories, Tier I, II, or III. Those categories correspond to certain policy measures described in paragraph E of this procedure.
2. CG-CVC exercises the risk model annually. From the model output, CG-CVC notifies owners by mail if their vessel is assigned to Tier I, or if their vessel was Tier I in the previous year and is assigned a lower tier for the current year.
 - i. *Tier upgrades*. The OCMI may upgrade a vessel's tier assignment at their discretion.
 - ii. *Tier downgrades*. CG-CVC may, pursuant to a request from an OCMI, downgrade a vessel's tier assignment. The OCMI should support their request with objective evidence that the vessel poses a lower risk than the model reports. Reasons could include a recent route reduction, passenger count reduction, positive results of an inspection, implementation of a safety management system, or a documented trend that mitigates the cause(s) of the high risk score. Downgrades do not carry forward to a following year's tier list.
 - iii. *New vessels*. A vessel undergoing initial certification is by default considered Tier I. It is evaluated by the risk model at the next annual model run.

E. INSPECTION SCOPE.

1. Inspection scope varies according to vessel tier and the inspection cycle. In general, Tier I vessels are subject to the broadest scope inspections each year. Tier II and III vessels are subject to narrower scope annual inspections and broader scope Certificate of Inspection renewals, generally once every five years. In accordance with 46 CFR §§ 115.840 and 176.840, any inspection may be expanded in scope when objective evidence is found necessitating a more thorough inspection or for training purposes.
2. In addition, some Tier I vessels are also subject to in-service inspections. Follow-on inspections are generally 5-7 months after the COI anniversary date, but OCMI's may exercise discretion to account for seasonal operators. They are scheduled ahead of time and are used to observe the vessel in a typical operating condition while minimizing impact on business operations.

- F. REQUEST FOR CHANGES. Comments and suggestions to improve this program are welcome. All such correspondence, and any questions may be emailed to Commandant (CG-CVC) at CG-CVC@uscg.mil. This and other CG-CVC policy documents are posted at <https://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/Inspections-Compliance-CG-5PC-/Commercial-Vessel-Compliance/CG-CVC-Policy-Letters/>.

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 By direction