Australian Government
Australian Maritime Safety Authority

AMSA webinar Q & A

Hazardous gases on domestic commercial vessels (DCVs)

On 27 November 2025, AMSA hosted a webinar on managing hazardous gases on domestic commercial vessels (DCVs). The session focused on identifying, monitoring, and addressing risks associated with carbon monoxide, hydrogen sulphide and carbon dioxide.

Gas detection and response

How will I know if there is hydrogen sulphide in my vessel?

It is most commonly recognised by a rotten egg smell. For people working in spaces where hydrogen sulphide is likely (such as persons working on sewage systems), the use of specialist gas detection equipment would be an effective control.

If someone has temporarily lost their sense of smell is there any other way to identify hydrogen sulphide other than portable detectors?

For smaller operations, smell detection should be only one aspect of identifying the risk. You can manage risk with simple steps. These may include pumping out of the holding tank daily, flushing it often, and checks on the ventilation system. For larger operations, or if additional control is required, a suitable portable gas detector may be necessary.”

Is it safe to be in the swim deck area?

Provided you have considered the risk of gases and reduced the risk, it can be safe. Risk controls could include only allowing people on the swim deck or in the water close to the swim deck when the engines are not running.

Divers face extra danger from carbon monoxide because it stops the blood carrying oxygen. These effects become more severe at depth.

How do you treat carbon monoxide inhalation on a vessel?

Move to fresh air immediately. Call 000 and seek medical assistance.

For a 10 m passenger vessel with a single marine toilet and holding tank, what level of detail would AMSA expect to see in the hazardous gases risk assessment?

For a small 10 m passenger vessel with one toilet and holding tank, AMSA expects a simple, practical risk assessment. It should identify the hazard (e.g. hydrogen sulphide from sewage system), say who is at risk (e.g. passengers/crew) and list the controls (e.g. pump out tank after each trip, check ventilation, brief crew to evacuate and call master). Also consider any other hazardous gas risks that may be present on your vessel.

Is it now mandatory to include this in our SMS including risk assessments, procedures and signage on the vessel?

The existing requirements for risk assessment are to identify the risks onboard. The risk of hazardous gasses is not a new risk, so the legislation isn't changing.

The intent of this webinar and the focused inspection campaign is to highlight these risks, as they are not always considered.

Focused Inspection Campaign

The inspection checklist asks whether crew have received induction or training on hazardous gases. For a small owner-operator with two casual deckhands, is a brief 5-minute verbal briefing—documented in the SMS and signed in the logbook—sufficient evidence?

You should maintain a simple record of what was covered (appropriate to the vessel), names of people briefed, signatures and date of briefing. Keep this record for 5 years.

The inspection checklist asks if the vessel is fitted with/if crew have access to hazardous-gas monitoring devices. This is not a direct MO504 requirement. If the risk assessment shows low risk and no detector is carried, will inspectors still mark Question 6 as ‘No’ (even though it’s compliant)?

AMSA may issue a deficiency if you do not have any control measures in place to mitigate the risk.

AMSA will not issue a deficiency purely for not having the hazardous gas-monitoring device.

Will I receive a fine during the inspections?

No. However if your vessel is found to be non- compliant you may receive a deficiency notice. If that happens, the inspector will assist you in resolving the issue. Serious compliance actions—such as issuing a national law notice—will only be taken if there is an immediate risk to safety or the environment.

National Standard for Commercial Vessels (NSCV) and reporting

Do you have any NSCV standards for hazardous gases on a vessel?

Yes, these parts in the NSCV relate to hazardous gases:

- NSCV C5C deals with safety around LPG systems for appliances
- C5A has restrictions for ammonia as a refrigerant
- C4 has safety requirements for CO2 systems
- C1 deals with gastight boundaries between crew sleeping arrangements and machinery spaces.

What is the minimum for air changes per hour required for a toilet/bathroom ventilation system? 6 times an hour?

NSCV Part C1 details ventilation requirements. If you use fans instead of natural airflow you need at least 6 air changes per hour for enclosed accommodation in Class 2 and 3 vessels, and 10 per hour on Class 1 vessels. Toilets must vent to the outside, not into other rooms.

Why does AMSA not just mandate gas detection and alerting devices, rather than just make a recommendation?

This may be proposed during the next public consultation on the relevant Marine Order or Standard.

Are there statistics available on how frequently carbon monoxide poisoning occurs each year?

Not specifically. Please check safety agency reports (AMSA quarterly marine incident reports, Safe Work Australia and State/territory WHS regulator reports)