

Public consultation

*HAZARDOUS SUBSTANCES
SAFE WORK INSTRUMENTS*

June 2022



Te Kāwanatanga o Aotearoa
New Zealand Government

WORKSAFE
Mahi Haumarū Aotearoa



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Purpose

WorkSafe New Zealand is consulting on proposed amendments to the Health and Safety at Work (Hazardous Substances – Polyethylene Above Ground Stationary Tanks for Diesel Fuel) Safe Work Instrument 2017 (the 2017 SWI) which sets requirements for tanks, specifically polyethylene above ground stationary tanks for diesel fuel.

We would like feedback on the proposed amendments, which will help WorkSafe determine whether they are appropriate for these stationary tanks.

Proposal to incorporate new standards

WorkSafe also proposes to incorporate three new standards into the safe work instrument (SWI):

- AS/NZS 4766 Rotationally moulded, buried, partially buried and non-buried storage tanks for water and chemicals
- ASTM D2565-16 Standard Practice for Xenon-arc Exposure of Plastics Intended for Outdoor Applications, and
- OFTEC OFS T100, Polyethylene Oil Storage Tanks and Tank Bunds for Distillate Fuels.

The standards will be available for viewing at WorkSafe's offices during the consultation period.

We welcome any feedback on our proposals to incorporate these standards.

How to have your say

You can find the SWI, a response form, and information on providing a submission here: worksafe.govt.nz

Submissions can be made by email to: regulatory.frameworks@worksafe.govt.nz

The deadline for receiving submissions is **Friday 15 July 2022**.

Your submission may be made public

The Official Information Act 1982 (OIA) allows New Zealand citizens and permanent residents, or anyone in New Zealand, to request official information from the government – including copies of submissions.

WorkSafe will let you know if we receive an OIA request for a copy of your submission. The content of your submission may be made available to the public; however, you can indicate on the response form whether you would prefer your details to be kept confidential.

WorkSafe will manage any personal information you supply in accordance with the Privacy Act 2020.

Next steps

Once consultation has closed, WorkSafe will analyse all submissions, and as appropriate use the feedback to inform the final design of the proposed SWI.

We will then present the SWI to the Minister for Workplace Relations and Safety for consideration. If approved, we will:

- notify the SWIs in the New Zealand Gazette
- publish the SWIs on WorkSafe's website: worksafe.govt.nz
- publish a summary of submissions.

Our contact details

If you have any questions about this consultation, please contact:

regulatory.frameworks@worksafe.govt.nz

About safe work instruments

A safe work instrument (SWI) is a form of legislation that supports or complements regulations. SWIs allow for greater flexibility and more timely updates to the regulatory framework, reflecting changes in technology, standards, and health and safety practices.

The WorkSafe New Zealand Act 2013 gives WorkSafe the function of developing SWIs. Section 227 of the Health and Safety at Work Act 2015 (HSWA) allows SWIs to define terms, prescribe matters, or make other provision in relation to any activity or thing, including (without limitation) listing standards, control of substances, and competency requirements. SWIs have legal effect only if they are referred to in regulations.

A SWI must be approved by the Minister for Workplace Relations and Safety. To approve a SWI, the Minister must be satisfied that the appropriate persons and organisations have been consulted.

There is more information about SWIs on our website: worksafe.govt.nz

Why is a SWI needed?

CONTEXT

When requirements for hazardous substances were moved from the Hazardous Substances and New Organisms Act 1996 (HSNO) to HSWA, many codes of practice under HSNO (HSNOCOPs) became SWIs.

HSNOCOP 11-2 Design and construction of above-ground rotationally-moulded tanks for automotive diesel fuel previously set requirements for tanks now covered by the Health and Safety at Work (Hazardous Substances – Polyethylene Above Ground Stationary Tanks for Diesel Fuel) Safe Work Instrument 2017.

REASON FOR CHANGE

This HSNOCOP was transferred to a SWI under HSWA solely to ensure design requirements for these tanks remained in force after the requirements for hazardous substances were moved from HSNO to HSWA. The requirements in the HSNOCOP were not reviewed or updated when they were transferred to HSWA.

We consider the scope of the 2017 SWI can be broadened by incorporating additional standards, or newer versions of standards, into the SWI.

We are also proposing minor changes to the wording of the SWI to ensure greater clarity of meaning and consistency of format.

Proposed amendments

WorkSafe proposes amendments to the following clauses of the SWI:

- Clause 4 (Interpretation)
- Clause 12 – Fill pipes
- Clause 14 – General design
- Clause 15 – Quality management system for construction of tanks
- Clause 16 – Quality management system for integral secondary containment systems
- Clause 18 – Construction materials: tanks.

CLAUSE 4 (INTERPRETATION)

We are making the following changes to definitions in the Interpretation clause of the SWI:

- i. Update the definition of AS/NZS 4766 to reflect the 2020 version of this standard.

The current SWI refers to AS/NZS 4766:2006 to incorporate ultraviolet requirements for polymer compounds. The 2020 version of the standard has changed in language and format, although the requirements incorporated into the SWI remain largely the same.

The SWI will also incorporate the text of a note from the current version of the standard.

See clause 18 below for more detail about why we propose incorporating this standard.

- ii. Add a definition for ASTM D2565, a new standard we propose to incorporate into the SWI.

This standard is included in the text of a note to clause 2.7.2 of AS/NZS 4766:2020 above, referring to requirements for polymer compound testing.

See clause 16 below for more detail about why we propose incorporating this standard.

- iii. Add a definition for OFTEC OFS T100, a new standard we propose to incorporate into the SWI.

The SWI will incorporate bund (secondary containment) deformation requirements from this standard.

See clause 16 below for more detail about why we propose incorporating this standard.

- iv. Add a definition for ‘overflow protection device’, which will be required for certain tanks.

See clause 12 below for more detail about why we are proposing to incorporate this standard.

CLAUSE 12 (FILL PIPE)

We propose amending clause 12 to require an overflow protection device for tanks supplied from a delivery tank wagon through a closed connection.

Tanks supplied from a delivery tank wagon are filled by a person standing next to the tank who has no means of seeing the level of liquid inside the tank. The overflow protection device protects this person from the risk of overflow during filling.

This will also ensure that these tanks meet requirements for similar tanks in the Reduced Secondary Containment for Certain Above Ground Stationary Tanks) Safe Work Instrument 2017 (clause 8).

CLAUSE 14 (GENERAL DESIGN)

We propose to amend this clause to require tanks to have a means of monitoring the interstitial space to detect a failure of the skin of the primary tank.

A means of monitoring will enable detection of damage that can cause diesel to leak into the secondary containment.

Detecting damage early will prevent spillage into the workplace and into the environment.

This is in line with requirements specified in the [Reduced Secondary Containment for Certain Above Ground Stationary Tanks](#) Safe Work Instrument 2017 (clause 8)

The proposed amendment will not specify the type of monitoring, so the PCBU will have to determine the most appropriate approach. Many methods are available, including visual inspection and electronic monitoring.

CLAUSE 15 (QUALITY MANAGEMENT SYSTEM FOR CONSTRUCTION OF TANKS)

We propose amending references to BS EN 13341 in subclause 15(c), by separating subclause 15(c) into two subclauses, one for each section of the standard that is referenced.

CLAUSE 16 (QUALITY MANAGEMENT SYSTEM FOR INTEGRAL SECONDARY CONTAINMENT SYSTEMS)

We are proposing to make several amendments to clause 16:

- i. Amend the requirements in 16(c) to reflect the how BS EN 13341 is referenced in the rest of this clause, which refers to each section of the standard in separate subclauses.
- ii. Amend the requirements in clause 16(h) to reflect how integral secondary containment is built by modifying the annexes of BS EN 13341 that are referenced in clause 16. Currently clause 16 references Annexes B1 to B8 of the standard.

This amendment is needed because in tanks covered by this SWI, the secondary containment system may be built with an unsealed opening above the tank.

The secondary containment for these tanks is also generally assembled from two moulded pieces. This type of assembly makes these tanks inappropriate for the pressure tests in Annex B7, which are intended for tanks that consist of a single tank with a sealable opening.

For this reason, we propose removing Annex B7 from the tests specified in clause 16(h) of the SWI. However, the other tests in Annexes B1 – B6 and Annex B8 will still apply.

- iii. Add a new standard to subclause 16(h) as an alternative to the current elongation or deformation test requirements set out in Annex B6.

The test currently specified in the SWI will remain as an option. Although the tests in section 4.4.6 of OFTEC OFS T100 are an alternative to those tests, they achieve similar outcomes as the current tests.

CLAUSE 18 (CONSTRUCTION MATERIALS: TANKS)

Clause 18(1)(b) will set UV protection requirements for the polyethylene compound used to construct the tank. Compounds other than the carbon black specified in the SWI are now available, so we propose amending the SWI to provide a tensile elongation test for these new materials.

We also propose incorporating a test from AS/NZS 4766:2020 into clause 18(1)(b).

While the test in AS/NZS 4766:2020 requires 8000 hours of exposure in a weatherometer to test polymer compounds, the proposed amendment to the SWI specifies 12000 hours.

This reflects proposed amendments signalled in a note to section C2.7.2 of AS/NZS 4766:2020 and will future proof the SWI and ensure the highest level of UV protection for New Zealand conditions.

Manufacturers who manufacture to ASTM D2565 or equivalents have indicated that they are already meeting this test or can do so with limited disruption. The SWI will allow those who do not use alternate materials to continue to meet the existing requirements for carbon black compounds.

Published: June 2022

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worksafe.govt.nz



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