Summary of Submissions

HAZARDOUS SUBSTANCES
SAFE WORK INSTRUMENTS

November 2017

New Zealand Government

WORKSAFE
NEW ZEALAND | MAHI HAUMARU AOTEAROA

CONTENTS

Purpose

This document summarises key submitter feedback received on proposed hazardous substances safe work instruments (SWIs) and WorkSafe's responses to that feedback. It outlines the resulting changes made to the SWIs.

Executive summary

On 14 August 2017, public consultation began on 13 proposed SWIs developed by WorkSafe under the Health and Safety at Work Act 2015 (HSWA) that set out detailed technical requirements concerning the use of hazardous substances at work.

The proposed SWIs will continue work-related requirements currently imposed by codes of practice made under the Hazardous Substances and New Organisms Act 1996 (HSNO) and by the EPA in the course of approving individual hazardous substances for importation and manufacture in New Zealand. The SWIs are part of the initiative to "lift and shift" the regulation of the work-related use of hazardous substances from the HSNO regime to the HSWA regime.

The consultation did not seek views on whether the SWIs should make substantive changes to existing requirements under HSNO. The scope of the proposed SWIs is to ensure PCBUs that are currently compliant under the HSNO regime remain compliant under the HSWA regime.

The SWIs are due to commence alongside the new Health and Safety at Work (Hazardous Substances) Regulations 2017 (the HS Regulations) on 1 December 2017.

Background

13 SWIs underwent consultation between 14 August 2017 and 8 September 2017. WorkSafe notified business and social partners (the Council of Trade Unions and Business New Zealand), targeted stakeholders with a particular interest in the subject matter, and 11,000 stakeholders via the hazardous substances e-newsletter. The draft safe work instruments were also available to the general public on WorkSafe's website.

Safe work instruments

SWIs are a new tool provided for by section 227 of the HSW Act. They are a type of subordinate instrument (sometimes called tertiary legislation) used to support or complement regulations. SWIs are developed by WorkSafe, and approved by the Minister for Workplace Relations and Safety.

A SWI has legal effect only to the extent it is referred to in regulations made under relevant health and safety legislation, such as the HSWA. SWIs can be made for the purposes of defining terms, prescribing matters, or making other provisions in relation to any activity or thing, including (without limitation) listing standards, substance controls, and competency requirements.

Hazardous substances safe work instruments

The hazardous substances SWIs will commence alongside the recently made HS Regulations.

Two types of SWIs applying to work-related use of hazardous substances were consulted on:

- SWIs to replace certain provisions in HSNO COPs[1]; and
- SWIs to continue additional or modified requirements already imposed on individual substances approved by the Environmental Protection Authority (EPA).[2]

WorkSafe notes that all SWIs should be read in conjunction with the HS Regulations and do not stand alone or independently of the HS Regulations. SWIs complement the HS Regulations by providing more detailed compliance requirements or in some cases by setting modified or additional requirements.

Both types of SWI are timed to take effect on the same date the HS Regulations come into force: 1 December 2017 (Day One).

Submissions received on hazardous substances safe work instruments

A total of 40 submissions were received on the proposed SWIs. Submitters included industry representatives, government agencies, businesses and social partners.

The submissions have helped inform further amendments to the proposed SWIs. These submissions and the consequential changes to the SWIs are recorded in this summary.

Some submitters suggested improvements to existing requirements provided in HSNO COPs or amendments to existing requirements for individual substances. This feedback has been recorded to inform future work, however such changes are not in scope for these SWIs, which are aimed at ensuring PCBUs currently compliant under the HSNO regime will remain compliant under the HSWA regime.

Submitters also recommended the SWIs include general guidance on how to comply with their requirements. SWIs are legislative in nature, setting requirements that modify, complement, or provide an alternative to those imposed by regulations. They are not intended to provide general guidance. However, feedback on guidance issues has been shared with WorkSafe's Guidance and Education Team.

1. Polyethylene Above Ground Stationary Tanks for Diesel Fuel

The proposed Health and Safety at Work (Hazardous Substances — Polyethylene Above Ground Stationary Tanks for Diesel Fuel) Safe Work Instrument 2017 replaces HSNO COP 11-2 *Design and construction of above-ground rotationally-moulded tanks for automotive diesel fuel* to ensure those provisions continue under HSWA.

SUBMISSIONS SUMMARY

Three submissions were made on the proposed SWI.

One submitter recommended that clause 6, *Specified standard for design or construction*, should also include standard AS/NZS 4766. WorkSafe notes the SWI reflects existing requirements under the HSNO COP and that BS EN 13341 is the prescribed standard.

[1] Recorded in Annex 1

[2] Recorded in Annex 2

One submitter queried how an opening can allow the tank to be drained of sludge, if all tank openings must be above safe fill level (as required by clause 8 and 9 of the proposed SWI). WorkSafe notes that this requirement reflects current requirements under the existing HSNO COP. WorkSafe also notes that a tank opening may be the same opening used for sludge draining.

A submission queried clause 13(1)(b) and the requirement that the liquid level indicator for a tank must resist heat and impacts in any foreseeable situation. WorkSafe notes that this relates to normal wear and tear as opposed to a fire incident.

A submitter correctly pointed out that the HSNO terms "high intensity land use" and "low intensity land use" were still used in error. This will be corrected in the final version.

CHANGES TO SWI

Following WorkSafe's review of submissions, the following changes will be made

1. Clause (5)(e) of the "Application" section has been amended to make it clear that the SWI applies to above ground stationary tanks located at an airfield, a commercial place, a farm, an isolated place or an industrial locality. This is to ensure PCBUs currently complying with HSNO COP 11 can continue to comply in accordance with this SWI.
2. The term "high intensity land use" will be amended to "protected place" to align with the new term used in the HS Regulations
3. The term "low intensity land use" will be amended to "public place" to align with the new term used in the HS Regulations
4. Clause 11(b) will be amended to correctly require that a tank have a vent pipe or a fitting "not more than 150 mm from the top of the tank and extends to no more than 0.5 m above the height of the tank"
5. The term "commercial place" will be introduced meaning a place of any of the following types, located in a rural area or an industrial locality:
   a. a logistic facility (including a transport yard, port or railway facility):
   b. refuelling facility:
   c. construction site:
   d. forestry site:
   e. mining area
6. The term "isolated refuelling facility" has been removed and "isolated place" will be introduced.

2. Management of Pre-2006 Existing Stationary Container Systems up to 60,000 litres capacity

The proposed Health and Safety at Work (Hazardous Substances — Management of Pre-2006 Stationary Container Systems up to 60,000L) Safe Work Instrument 2017 continues requirements imposed by HSNO COP 13 *Management of existing stationary container systems up to 60,000 litres capacity.*

SUBMISSIONS SUMMARY

Ten submissions were received on this SWI.

Following a number of comments on the difference in content and changes between the HSNO COP 13 and the proposed SWI, WorkSafe has prepared an overview in Annex 3 detailing what has changed in the development of the SWI.

A number of submissions noted that requirements in this SWI did not align with the provisions of the HS regulations. For example, under the SWI, tanks used in connection with oil burners or internal combustion engines may be installed

"adjoining a building", which is not provided for in the HS regulations. WorkSafe acknowledges the difference but notes that the provision in the SWI continues a similar provision in HSNO COP 13, and that the intent of this SWI is to ensure that tanks designed, constructed and installed prior to July 2006 remain compliant under HSWA. However, WorkSafe agrees that what is meant by 'adjoining' should be clarified.

Submitters also recognised that the SWI does not include much of the material contained in HSNO COP 13. The material in question is guidance for industry, requirements for compliance certifiers and references to a number of standards. SWIs are legislative in nature and their purpose is to prescribe requirements; they do not provide general information or guidance. However, this material has been passed on to WorkSafe's Guidance and Education team for inclusion in future guidance. In relation to requirements for compliance certifiers, this material will be incorporated into performance standards made under HSWA.

WorkSafe considered that the SWI would be more succinct and better reflect its intent by simply requiring tanks to continue meeting the standards to which they were designed and constructed, rather than specifying dozens of different standards, and their numerous iterations.

Submitters commented that the HSNO COP addressed tanks designed, constructed and installed prior to 2004, whereas the applicable year in the SWI is 2006. WorkSafe notes that the rationale for the 2006 date is to ensure the SWI captures tanks that met the requirements of Hazardous Substances (Dangerous Goods and Scheduled Toxic Substances) Transfer Notice 2004 and the 2006 amendment to that notice.

Some terminology used in the SWI has changed to reflect the different focus of the HSWA. For example, the SWI contains provisions related to the secondary containment of below ground tanks that differ according to whether the tank is located in a "high risk place", and, if not, whether a leak from the tank is likely to cause a significant threat to health and safety. This is similar to the distinctions drawn between Environmental zones A, B, and C in the HSNO COP, but focussing on the health and safety risks rather than the broader environmental considerations.

Two submitters noted it was unclear whether Parts of the SWI referring to specific types of tanks stand alone or prescribe additional requirements to previous Parts. WorkSafe advises that a tank will be subject to a specific Part of the SWI, if it falls within the application provision under that Part. WorkSafe also notes that the different types of tank and their related requirements are consistent with the HSNO COP.

One submitter interpreted the SWI as limiting storage in the tank to a single class of hazardous substance for the life of the tank. WorkSafe notes that this is not the intent of the SWI and agrees it should be clarified that a tank may hold a class 3.1, class 6 or class 8 hazardous substance during the lifetime of the tank. There is, however, a continued expectation that substances incompatible with the materials of a tank are not held in it.

One submitter questioned whether the SWI applied to plastic and concrete tanks. Concrete tanks can continue to be used and managed in accordance with the standard they were designed and constructed to. However, given that all plastic tanks have now reached the end of their 10 year life, WorkSafe notes that these tanks should no longer be in use in any case.

The secondary containment provisions in Part 2 - Single skinned above ground stationary tanks were interpreted as excluding containment systems that were not steel compounds. That is not the intention. Rather, the intention is that a compound must be chemically resistant to the substance to be contained, and may not be constructed of steel, if the tank contains a class 3.1A, 3.1B, or 3.1C substance. WorkSafe agrees this should be clarified.

One submitter queried the definition of approved compound. WorkSafe notes that clause 4 defines what is meant by "approved". In summary, an approved compound is one approved by the Chief Inspector of Dangerous Goods under the Dangerous Goods Act 1974.

One submitter queried whether a double skin tank that meets the required isolation requirements was still required to be built to SwRI 95-03. WorkSafe can confirm that if a tank meets the required separation distances, then the tank does not need to be built in accordance with SwRI 95-03.

Two submitters raised concerns with the daily stock reconciliation requirements and the difficulty of obtaining this information for unmanned sites and the requirement to retain a permanent record of every stock reconciliation. WorkSafe acknowledges the potential difficulties of meeting daily stock reconciliation requirements in such circumstances, and notes that, where this is the case, the SWI allows an alternative process that ensures the substance contained in the tank is used for its intended purpose and is not leaking from the tank to be used.

WorkSafe agrees that the requirement to keep a permanent record may be interpreted as applying indefinitely and should be adjusted.

Some submitters recommended that the SWI provide more requirements for the management of operational risks associated with the dispensing of hazardous substances from these types of containers. However, such a change is outside the scope of the SWI to ensure existing requirements under HSNO are transferred into the HSWA framework to ensure duty-holders remain compliant.

It was noted that the SWI does not address class 9 (ecotoxic) substances. As these substances pose environmental hazards, they remain under HSNO and consequently this SWI does not prescribe requirements for them.

CHANGES TO SWI

Following WorkSafe's review of submissions, the following changes will be made:

1. The definition "high risk place" will be simplified.
2. In response to feedback, the SWI will clarify that the means of preventing the build-up of excessive internal pressures in an above ground stationary tank may also include a pressure relief valve.
3. In response to feedback that electrical earthing is necessary for tanks used to store class 3 substances, but that it is difficult to determine its suitability, a provision modelled on regulation 17.31(1)(a)(ii) will be included to require a below ground tank to be effectively bonded to the main body of earth so that the resistance to earth does not exceed 10 Ω.
4. In response to a question regarding the application of the SWI to "portable user facilities", these will be included in the definition of a movable stationary tank, but only if containing diesel or Jet A1 fuel.
5. The SWI will clarify that the secondary containment system for an above ground stationary tank used for an oil burner or internal combustion engine may, but does not have to be, a separate steel bund.
6. The SWI will clarify that an above ground stationary tank used for an oil burner or internal combustion engine may be installed "immediately" adjoining a building.
7. The SWI will require a stock reconciliation record to be retained for three years rather than permanently.

8. The SWI will no longer prescribe in clause 7(1) *Modification of marking requirements for stationary tanks* tank capacity thresholds that allow these tanks to meet varied marking requirements. This is because this existing requirement has been impracticable to comply with. Deleting this clause will allow all pre-2006 tanks to comply with varied marking requirements if required. It also removes the inconsistent marking requirements that exist between small and large tanks, with smaller tanks currently required to meet a higher standard in accordance with the HS Regulations.

Following consultation with the Parliamentary Counsel Office, a number of drafting changes that do not affect the substantive requirements of the SWI will also be made.

3. Filling of Below Ground Petrol Tanks by Pumping

The proposed Health and Safety at Work (Hazardous Substances — Filling of Below Ground Petrol Tanks by Pumping) Safe Work Instrument 2017 replaces HSNO COP 14 Filling of below-ground petrol tanks by pumping to ensure those provisions continue under HSWA.

SUBMISSIONS SUMMARY

Three submissions were received for this SWI.

One submitter noted that the wording of the SWI limits its applicability to situations which could arise in the petroleum industry. For example, the SWI relates specifically to "petrol" which would exclude a number of other fuel blends that are not technically defined as "petrol". A change in wording was recommended to clarify that the fuels named in the SWI include class 3.1 fuels intended for spark ignition internal combustion engines.

It was also noted that, as currently drafted, the SWI only relates "to the filling of a below ground stationary tanks with petrol from a tank wagon" and a tank-to-tank pump transfer of petrol at a service station would be excluded from the requirements of this SWI. WorkSafe confirms that that is a correct interpretation as this SWI only relates to underground tanks.

A submitter noted that there was no mention of moving traffic or no smoking as is provided in the existing HSNO COP. WorkSafe advises that this is provided for in clause 9 Separation from ignition sources and clause 15 Job safety analysis implies this via the safety check requirements.

One submitter queried whether the SWI applied to GRP tanks also, and WorkSafe can confirm that this is correct and that the term "tanks" includes fittings.

WorkSafe also notes that although one submitter commented that clause 11 Fill connections may appear overly prescriptive, this reflects the existing code of practice and the intention to transfer those requirements.

One submitter queried why the SWI doesn't apply to all 3.1A and 3.1B substances. WorkSafe notes the SWI reflects the scope of the existing HSNO COP and its objective of ensuring duty-holders currently complying with this code remain compliant under HSWA.

CHANGES TO SWI

In response to the comment that the scope of the SWI would exclude fuel blends that are not technically defined as petrol, WorkSafe will amend the definition of petrol to:

petrol means any of the following:

a. petrol (unleaded), HSNO approval number HRC000003:

b. E85, HSNO approval number HSR008039:

c. aviation gasoline and racing gasoline, HSNO approval number HSR001442:

d. petrol-ethanol blends, HSNO approval number HSR000073.

4. Design and Construction of Above Ground Stationary Tank to ULC-ORD-C80.1-2000

The proposed Health and Safety at Work (Hazardous Substances — Design and Construction of Above Ground Stationary Tank to ULC-ORD-C80.1-2000) Safe Work Instrument 2017 replaces HSNO COP 17 *Design and construction of above-ground non-metallic stationary tanks to ULC-ORD-C80.1-2000* to ensure those provisions continue under HSWA.

SUBMISSIONS SUMMARY

A submitter commented that this is currently a private code. WorkSafe notes that the SWI will be publically available free of charge when approved and published on WorkSafe's website.

CHANGES TO SWI

No changes are planned for this SWI following consultation.

5. Action Taken in Relation to Disused Below Ground Tanks on Farms

The proposed Health and Safety at Work (Hazardous Substances — Action Taken in Relation to Disused Below Ground Tanks on Farms) Safe Work Instrument 2017 continues requirements imposed by HSNO COP 19 *Disused below-ground tanks on farms*.

SUBMISSIONS SUMMARY

One submission was received on this SWI.

The submitter noted differences between the SWI and the existing HSNO COP, including the removal of information on types of fuels. WorkSafe notes that information on fuels is provided in clause 5(1)(a). The submitter also commented that "inert material" was not addressed in the SWI, however WorkSafe notes that inert material is included in clause 6(f)(iv).

The submitter also noted the deletion of references to Regional and Territorial Authority requirements. It will still be necessary to comply with any such requirements and appropriately engage with the relevant regional or territory authority to determine these. However, that is a matter regulated under local authority legislation and not something that can be addressed in a SWI.

CHANGES TO SWI

No changes are planned for the SWI following consultation.

6. Markings for Pipework Connected to Above Ground Stationary Tanks

The proposed Health and Safety at Work (Hazardous Substances — Markings for Pipework Connected to Above Ground Stationary Tanks) Safe Work Instrument 2017 continues requirements in HSNO COP 21-1 *Pipework marking for class 3.1 flammable liquid fuels in storage depots.*

SUBMISSIONS SUMMARY

Four submissions were received on the SWI.

One submitter queried how the SWI relates to the HS Regulations. WorkSafe notes that the SWI provides additional requirements to those prescribed in the HS Regulations, specifically, an alternative to regulation 17.78.

It was noted that the SWI does not continue to reference standards *NZS 5807:1980 Industrial identification by colour, wording, or other coding and AS1345 – 1995 Identification of the contents of pipes, conduits and ducts. AS1345-1995* is included in the HS regulations in 17.78(2)(a), while the requirements provided in *NZS 5807:1980* are reflected directly in the SWI.

The scope of the SWI was also queried. As provided in clause 5, Application, the SWI applies to pipework connected to an above ground stationary tank that:

a. forms part of a stationary container system; and

b. has a water capacity of 60,000 L or more; and

c. is used or intended to be used to contain a Class 3.1 substance.

The SWI does not apply to pipework that is a pipe outside a fuel storage depot boundary nor does it apply to a pipeline that is subject to the Health and Safety in Employment (Pipelines) Regulations 1999. This does not prevent a PCBU from complying with the SWI in relation to such pipework or pipelines (as appropriate) if they wish, but they are not required to do so.

One submitter queried the definition of "boundary". WorkSafe notes that in this context, "boundary" is referring to the furthest extent of the place where the fuel is stored. It may overlap with, but will not necessarily be, the legal boundary.

The requirement in Schedule 2 for labels to be 400 mm wide was queried. WorkSafe acknowledges that it is unclear why the 400 mm minimum has been prescribed to date and it will amend the SWI to require a minimum 375 mm width to align with the Australian standard.

Improvements were also suggested for the proposed SWI in terms of content, for example allowing alternative systems for installations inaccessible to any person other than operators and emergency response personnel trained in coding systems. WorkSafe notes the scope of the SWI is to continue the current requirements of HSNO COP 21-1 rather than to make changes to existing requirements.

CHANGES TO SWI

Following WorkSafe's review of submissions, the following changes will be made:

1. Clarify that the SWI applies to above ground pipework only.
2. Clarify that the minimum width of product identification markers is 375 mm.

7. Reduced Secondary Containment for Certain Above Ground Stationary Tanks

The proposed Health and Safety at Work (Hazardous Substances — Reduced Secondary Containment for Certain Above Ground Stationary Tanks) Safe Work Instrument 2017 continues requirements in HSNO COP 24 *Above ground stationary tanks with integral secondary containment*.

SUBMISSIONS SUMMARY

Five submissions were received on this SWI.

A number of submissions recommended amendments to the content of the SWI, however the scope of this SWI is limited to transferring requirements currently

provided in HSNO COP 24 into the HSWA framework. Feedback also recommended improving the definition of "public place", however this would require a change to the HS Regulations and is therefore outside the scope of the SWI.

One submitter noted that the "Damage avoidance" section and accompanying appendix in the HSNO COP are not included in the SWI. WorkSafe notes that this is correct, however this is now provided for within the terms "multi-hazard tank – 2 hour", "multi-hazard tank – 4 hour", and "double skin tank – impact protected".

CHANGES TO SWI

Following WorkSafe's review of submissions, the following change will be made:

1. In provisions relating to Testing tanks for leakage, the reference to "steel construction" will be deleted as the tanks are only made of steel and no other material.
2. In provisions relating to Classes of hazardous substance and capacity of tanks permitted at specified locations, clarify that compartments of the tank may hold different subclasses of hazardous substances.

8. Specification of Standard Relating to Non-Refillable Containers

The proposed Health and Safety at Work (Hazardous Substances — Specification of Standard Relating to Non-Refillable Containers) Safe Work Instrument 2017 replaces HSNO COP 46 *Non refillable cylinders manufactured to BS EN 12205: 2001* to ensure those provisions continue under HSWA.

SUBMISSIONS SUMMARY

No submissions were made on this SWI.

CHANGES TO SWI

The SWI will no longer limit the alternative marking requirements in clause 7(1) to those tanks that exceed certain capacity thresholds. This change addresses the current regulatory gap that inadvertently requires smaller tanks to meet more stringent marking requirements than those applying to larger tanks. Deleting this clause will therefore make it clear that all pre-2006 tanks to which the SWI applies may comply with varied the modified marking requirements.

9. Thermoplastic Stationary Tanks

The proposed Health and Safety at Work (Hazardous Substances — Thermoplastic Stationary Tanks) Safe Work Instrument 2017 combines and replaces HSNO COP 4 *Thermoplastic Stationary Tanks and Process Containers for Hazardous Liquids with Class 5, 6, 8 and 9 Hazard Classifications* and HSNO COP 56 *Design and Construction of Thermoplastic Tanks for Class 6, 8 and 9 Hazardous Liquids* to ensure that their provisions continue under HSWA.

SUBMISSIONS SUMMARY

Three submissions were made on this SWI.

The submissions included recommendations for guidance, which have been shared with WorkSafe's Guidance and Education Team.

One submitter noted that while AS/NZS 1170 is a suitable standard for determining the reasonably expected loads on plastic tanks, it was also important to determine whether the tank can be considered stable under seismic conditions. WorkSafe notes that regulation 17.6(3) of the HS Regulations requires above ground stationary tanks to be designed, constructed and installed to the seismic and wind loading requirements specified in standards.

One submitter recommended deleting clause 7(3) Requirements relating to service life and material. WorkSafe notes that this clause is transferred into the SWI as it is currently provided in the HSNO COP and is necessary given the nature of the constructions that are used.

WorkSafe asked whether this SWI should require welders to complete specific training standards before being involved in the construction of tanks. However, the submissions did not provide any standards, and two submitters noted that practical experience and independent training are currently the best way to be assured of a welder's competency. Subsequently, the SWI will not prescribe any training standards for welders.

WorkSafe asked submitters if they agreed with conducting hydrostatic testing for 48 hours (as prescribed in HSNO COP 56 or whether they preferred a shortened timeframe of 8 hours. Submitters supported the 8 hour timeframe and it will remain in the SWI.

WorkSafe asked whether sodium hypochlorite should be excluded from storage in tanks and therefore added to the list of substances provided in clause 12(1). One submitter supported the exclusion of this substance, noting that in their practical experience, tanks holding this substance will not last longer than 10 years.

CHANGES TO SWI

Following WorkSafe's review of submissions, the following change will be made:

1. Clause 8(2) Welding of tank during construction will be amended by replacing "fabrication" with "construction".
2. Clause 12(1) Operation will prescribe that these tanks cannot store sodium hypochlorite, however the SWI will provide that "a PCBU with management or control of a tank may use the tank for the storage of sodium hypochlorite at a concentration of 15% or less, if —
   i. the barrel of the tank is annealed; and
   ii. the maximum capacity of the tank is 7 000 L."

10. Above Ground Stationary Tanks Connected to a Generator Set

The proposed Health and Safety at Work (Hazardous Substances — Above Ground Stationary Tanks Connected to a Generator Set) Safe Work Instrument 2017 replaces HSNO COP 60 S*tationary container systems connected to a generator set* a to ensure those provisions continue under HSWA.

SUBMISSIONS SUMMARY

Three submissions were made on this SWI.

One submitter pointed out that while the HSNO COP previously required compliance with the 2006 version of standard UL 142 , the SWI prescribes the 2010 version. The intent is for duty-holders to continue to comply with the standards they currently comply with where appropriate. WorkSafe has raised this with the Ministry of Business, Innovation and Employment as a transitional issue, as the HS Regulations need to continue to recognise these standards.

One submitter noted a wording change from “vapour tight” to “gas tight”. While WorkSafe recognises that there is a subtle difference between the two terms, this change is not intended to have any implication. Consequently, “gas tight” will be retained in the final version of the SWI.

A submitter noted the SWI was silent on “safe locations” and “calibration liquid level indicators”. The SWI can only prescribe the matters provided in the referring regulation which allows the SWI to be made. As this requirement is made under regulation 17.6(1)(k), which is limited to design and construction, installation matters are not included. However, regulations 17.3 and 17.4 are applicable to safe location statements. Regulation 17.12 addresses calibration liquid levels.

One submitter queried the scope of the SWI and WorkSafe confirms that the SWI ‘lifts and shifts’ the content of HSNO COP 60, including the provision that no double skin tanks greater than 6,000 litres may be constructed in accordance with the SWI.

CHANGES TO SWI

To make it clear what a “double skin tank” is, the following definition will be included in the SWI:

Double skin tank—

a. means a stationary tank that has integral secondary containment configured as—
   i. two cylindrical tanks, one inside the other; or
   ii. a cylindrical primary tank inside a secondary tank that fully envelops the primary tank; or
   iii. a rectangular or square primary tank inside a secondary tank that fully or partially envelops the primary tank.

11. Above Ground Rotationally-Moulded Polyethylene Stationary Tanks

The proposed Health and Safety at Work (Hazardous Substances — Above Ground Rotationally-Moulded Polyethylene Stationary Tanks) Safe Work Instrument 2017 combines and replaces HSNO COP 61 *Rotationally moulded polyethylene storage tanks for non-flammable hazardous substances* and HSNO COP 12 *Rotationally Moulded Polyethylene (PE) Tanks to AS/NZS 4766 for Non Flammable Hazardous Substances* to ensure those provisions continue under HSWA.

SUBMISSIONS SUMMARY

Four submissions were made on this SWI.

Submitters advised that AS/NZS 4766:2006 is currently being reviewed, and WorkSafe is aware of this.

One submitter suggested that it would be useful for the SWI to provide for tanks with a capacity of up to 50,000 L. WorkSafe notes that the SWI is transferring requirements already provided in HSNO COP 61, and such a change would require wider consideration and consultation which is not in scope prior to Day 1.

Some submitters believed the SWI excluded cylindrical tanks. This is not the intention of the SWI and this will be made clearer in the final version of the SWI.

WorkSafe asked the specific question as to whether it would be helpful to include the following wording:

" or linear geometric analysis in cases where,—

i. the designer can demonstrate there is no significant difference between the displacement and stress results generated by linear geometric analysis and those generated by GNA; or

ii. the results produced by linear geometric analysis are conservative compared with those obtained using GNA."

One submitter responded to this question and advised that this was not helpful and consequently the SWI will not provide this wording.

WorkSafe queried what industry understood by the term "elevated temperatures" and how WorkSafe could better explain it. One submitter advised that the term most probably refers to temperatures above 23 degrees Celsius as most material tests are done at that temperature. WorkSafe agrees with this interpretation and will provide further explanation of this term in the final version of the SWI.

One submitter noted that the requirement in clause 18(1) Extrapolation of material test data, to obtain 5 000 hours of data on long-term creep tests was unlikely for all levels of stress. However, WorkSafe has received assurance from the developers of the HSNO COP 61 that this type of data is readily available. Consequently, this requirement will be retained.

Submitters recommended that guidance be made available for compliance certifiers for specific topics including maximum allowable creep for an existing tank under normal load conditions. This information has been shared with WorkSafe's Guidance and Education Team.

CHANGES TO SWI

Following WorkSafe's review of submissions, the following change will be made:

1. Amend clause 11 to allow for test data at elevated temperatures to be provided by material suppliers.
2. Clarify that cylindrical tanks are not excluded.
3. Amend clause 9 Load case combination by adding a new subclause (3) that provides "for serviceability limit state design the creep modulus must be used".
4. Define "elevated temperatures" further to make it clear that this term relates to temperatures above 23 degrees Celsius.
5. Provide for air and water pressure testing but clarifying that air testing may only be used when water-testing is not appropriate.
6. Standard AS 3600-2009 Concrete structures was included in error and will be replaced by standard NZS 3101.1 & 2:2006 Concrete structures.

Additional or modified requirements for hazardous substances

WorkSafe consulted on two further SWIs to continue workplace controls imposed by the EPA on certain approved class 6 & 8 substances.

Details of the two SWIs are set out in Annex 2.

1. Additional Requirements for Specified Class 6 and 8 Substances

The proposed Health and Safety at Work (Hazardous Substances—Additional Requirements for Specified Class 6 and 8 Substances) Safe Work Instrument 2017 continues certain work-related controls set by the EPA for specific class 6 and 8 substances.

SUBMISSIONS SUMMARY

WorkSafe received one submission on this SWI.

The submission provided useful information on additional substances and requirements overlooked during the drafting of the SWI and which are necessary to ensure PCBUs using those substances remain compliant under HSWA.

The submitter considered that the certified handler and controlled substance licence (CSL) requirement for a Solid containing 900 - 1000 g/kg alpha-chloralose, HSR007750 should be removed. WorkSafe notes that the requirement to be a certified handler or hold a CSL is triggered by the HS Regulations. WorkSafe's interpretation is that this requirement applies to substances only when they are classified as class 6.1A, 6.1B substances or vertebrate toxic agents. However, if a substance is mixed and diluted so that it is no longer a class 6.1A or 6.1B substance, as in the situation described by the submitter, the requirement to be a certified handler or hold a CSL would not be triggered.

The submitter also noted that amendments were necessary to regulation 13.13 to ensure it provided the same exceptions provided by regulations 13.11 and 14.5. This is out of scope for the SWI, however WorkSafe has raised this with the Ministry of Business, Innovation and Employment.

The submitter recommended that clause 13 Tracking PAPP Ready-to-use Bait be deleted given that PAPP Paste A (HSR100494) is already a tracked substance. WorkSafe disagrees with this. The tracking requirement was applied to this specific activity by the HSNO Decision-Making Committee. It would appear that, given substances change their composition and essentially become new substances when mixed, tracking may no longer apply to PAPP Paste A when mixed with the other ingredients of the Ready-to-use Bait. However, to ensure continued awareness of where this substance is used in the environment (even if mixed), continued tracking is required.

Following this feedback and via discussions with the Ministry of Business, Innovation and Employment, it is proposed that amendments to the HS Regulations are sought and the following substances be included in table 2 of Schedule 26 and the tracking requirements of Part 19 of the HS Regulations:

a. PAPP Ready-to-use Bait, HSNO approval number HSR100496:
b. PLC-2, HSNO approval number HSR101184:
c. Feratox pellet A in 9 g Ferafeed Paste, HSNO approval number HSR100752:
d. Feratox pellet A in 12 g Ferafeed Paste, HSNO approval number HSR100752:
e. Feratox pellet A in 18 g Ferafeed Paste, HSNO approval number HSR100752:
f. Feratox pellet A in 20 g Ferafeed Paste, HSNO approval number HSR100752:
g. Feratox pellet B (one pellet) in 18 g Ferafeed Paste, HSNO approval number HSR100752:
h. Feratox pellet B (two pellets) in 18 g Ferafeed Paste, HSNO approval number HSR100752.

CHANGES TO SWI

Following WorkSafe's review of submissions, the following change will be made:

1. The certified handler requirement will be modified so that it does not apply to the following substances:
   b. hydrochloric acid, >25% aqueous solution, HSNO approval number HSR001557:
   c. hydrobromic acid, 47 – 60% aqueous solution, HSNO approval number HSR001556:
   d. hydriodic acid, 57 – 67% aqueous solution, HSNO approval number HSR001560.
2. The requirement for a controlled substance licence is modified so that it does not apply to Solid containing 900 - 1000 g/kg alpha-chloralose, HSNO approval number HSR007750.

2. Modified Requirements for Specified Fumigants

The proposed Health and Safety at Work (Hazardous Substances—Modified Requirements for Specified Fumigants) Safe Work Instrument 2017 transfers certain controls set by the EPA on specific fumigant substances as requirements under HSWA.

SUBMISSIONS SUMMARY

WorkSafe received submissions from two organisations on this SWI.

Comments included recommendations to make improvements or prescribe additional requirements when using methyl bromide. WorkSafe notes that the purpose of the SWI is to transfer requirements currently provided under HSNO into the HSWA framework. These recommendations are outside that scope and consequently will not be reflected in the final version of the SWI. However, improvements to existing requirements may be explored following commencement of the HS Regulations.

One suggestion recommended the SWI require air monitoring at multiple sites. WorkSafe notes that the General Risk and Workplace Management regulations sets out monitoring requirements in relation to prescribed exposure standards. These are recorded in the methyl bromide approval and must be complied with under HSWA.

Concern was raised with clause 8(5) Notification of intended fumigation – quarantine or pre-shipment fumigation using methyl bromide and the ability of a PCBU who intends to carry out quarantine or pre-shipment fumigation using methyl bromide to notify relevant persons annually. WorkSafe notes that this clause only applies if there are to be regular fumigations (clause 8(5)(a) provides for a weekly frequency) and that if the PCBU has notified all relevant persons of the intended initial fumigation, the PCBU may subsequently notify these persons annually.

One submitter recommended that the SWI prescribe how notification of intended fumigation should be provided. WorkSafe notes that the HS regulations require PCBUs provide 24 hour notice prior to fumigation occurring. How this notification is made is not prescribed in the regulations to provide for flexibility and to reflect the various ways people conduct their work, e.g. by email, telephone or in person discussions.

One submitter recommended that signage be required at intervals that allow it to be seen regardless of where someone may enter the buffer zone. However, WorkSafe is satisfied with the requirement in the HS Regulations to place signage at every point of access to a buffer zone in order to keep members of the public out of the buffer zone area.

CHANGES TO SWI

No changes to the content of the SWI will be made in response to the submissions received for the reasons set out above.

However, the EPA approved the importation of a new fumigant AFE-HFP and WorkSafe consulted on proposed requirements relating to the workplace use of this fumigant during October. This may lead to its incorporation into this SWI.

Implementation

WorkSafe is now finalising the SWIs and they will be provided to the Minister for Workplace Relations and Safety for the Minister's consideration in November 2017.

Once approved, the SWIs will be published on WorkSafe's website.

The requirements provided in the SWIs will come into effect, if approved, alongside the HS Regulations on 1 December 2017.

Annex 1 Safe work instruments developed to replace HSNO codes of practice

HSNOCOP NUMBER	HSNOCOP TITLE	SWI TITLE	HS REGULATIONS, REFERRING PROVISION
11-2	Design and Construction of Above Ground Rotationally Moulded Tanks for Automotive Diesel Fuel	Health and Safety at Work (Hazardous Substances — Polyethylene Above Ground Stationary Tanks for Diesel Fuel) Safe Work Instrument 2017	17.6(1)(k) 17.7(3)(c) 17.12(3) 17.76(1)(b)(ii) 17.105(4) 11.39
13	Management of Existing Stationary Container Systems up to 60 000 litres Capacity	Health and Safety at Work (Hazardous Substances — Management of Pre-2006 Stationary Container Systems up to 60,000L) Safe Work Instrument 2017	Schedule 1, clause 42(1)(c)
14	Filling of Below Ground Petrol Tanks by Pumping	Health and Safety at Work (Hazardous Substances — Filling of Below Ground Petrol Tanks by Pumping) Safe Work Instrument 2017	17.34(1)(c)
17	Design and Construction of Above Ground Stationary Tanks to ULC-ORD-C80.1-2000	Health and Safety at Work (Hazardous Substances — Design and Construction of Above Ground Stationary Tank to ULC-ORD-C80.1-2000) Safe Work Instrument 2017	17.6(1)(k) 17.7(3)(c) 17.12(3) 17.76(1)(b)(ii) 17.105(4)
19	Disused Below Ground Stationary Tanks on Farms	Health and Safety at Work (Hazardous Substances — Action Taken in Relation to Disused Below Ground Tanks on Farms) Safe Work Instrument 2017	17.39(1)(c)
21-1	Pipework Marking for class 3.1 Flammable Liquid Fuels in Storage Depots	Health and Safety at Work (Hazardous Substances — Markings for Pipework Connected to Above Ground Stationary Tanks) Safe Work Instrument 2017	17.78(2)(b)
24	Above Ground Stationary Tanks with Integral Secondary Containment	Health and Safety at Work (Hazardous Substances — Reduced Secondary Containment for Certain Above Ground Stationary Tanks) Safe Work Instrument 2017	17.100(3)(b)
46	Non refillable cylinders manufactured to BS EN 12205: 2001	Health and Safety at Work (Hazardous Substances — Specification of Standard Relating to Non-Refillable Containers) Safe Work Instrument 2017	15.26(1)(a)(iii)
56	Design and Construction of Thermoplastic Tanks for Class 6, 8 and 9 Hazardous Liquids	Health and Safety at Work (Hazardous Substances — Thermoplastic Stationary Tanks) Safe Work Instrument 2017	17.6(1)(k) 17.76(1)(b)(ii) 17.105(4) 17.92(1)(a)(i)(E)
4	Thermoplastic Stationary Tanks and Process Containers for Hazardous Liquids with Class 5, 6, 8 and 9 Hazard Classifications		
60	Stationary Container systems Connected to a Generator Set	Health and Safety at Work (Hazardous Substances — Above Ground Stationary Tanks Connected to a Generator Set) Safe Work Instrument 2017	17.6(1)(a) to (j)
12	Rotationally Moulded Polyethylene (PE) Tanks to AS/NZS 4766 for Non Flammable Hazardous Substances	Health and Safety at Work (Hazardous Substances — Above Ground Rotationally-Moulded Polyethylene Stationary Tanks) Safe Work Instrument 2017	17.6(1)(k) 17.12(3) 17.76(1)(b)(ii) 17.105(4) 17.92(1)(a)
61	Rotationally Moulded Polyethylene Storage Tanks for Non Flammable Hazardous Substances		

Annex 2 Safe work instruments developed to apply additional and modified requirements for hazardous substances

SUBSTANCE	SWI TITLE	HS REGULATIONS REFERRING PROVISIONS
Dichlorvos-containing substances: a. **aerosol containing 50g/kg dichlorvos, HSNO approval number HSR000212** b. **emulsifiable concentrate containing 1kg/L dichlorvos, HSNO approval number HSR000211** c. **emulsifiable concentrate containing 1.14kg/L dichlorvos, HSNO approval number HSR000213.**	Health and Safety at Work (Hazardous Substances—Additional Requirements for Specified Class 6 and 8 Substances) Safe Work Instrument 2017	13.4(1),(2)(a) and (2)(b) 13.7(4) 13.24(1)(b) 13.24(3)(b) 13.46(6)(a),(b), and (7) 19.2
Raxil Star (HSNO approval number HSR101132)		
Poncho Votivo (HSNO approval number HSR101149)		
Dianex (HSNO approval number HSR101016)		
Firefly (HSNO approval number HSR007993)		
Melody Duo (HSNO approval number HSR001616)		
Melody Duo NF (HSNO approval number HSR007814)		
Fumithor™ Delta Insecticide Smoke Generator (HSNO approval number HSR101185)		
Grainguard Supersmoke (HSNO approval number HSR10100)		
Perfringolysin O Protein (HSNO approval number HSR101206)		
PAPP Ready-to-use Bait (HSNO approval number HSR100496)		
Tri-Form 60	Health and Safety at Work (Hazardous Substances—Modified Requirements for Specified Fumigants) Safe Work Instrument 2017	14.7(4) 14.10(4)
Ripper Range		
Methyl bromide		

Annex 3 Substantive changes to HSNCOP13 provisions in drafting of the SWI for pre-2006 stationary container systems

REF IN HSNOCOP 13	SWI PROVISIONS	CHANGE MADE	REASON
1.1	–	Text not included in the SWI: '7) Stationary tanks for the storage of hazardous liquids with a Class 9 (ecotoxic) classification, designed, constructed and installed in accordance with the provisions of the Dangerous Goods (Class 3 – Flammable Liquids) Regulations 1985, the Toxic Substances Regulations 1983 and/or a standard approved by the Ministry of Health.'	Scope changed to align with health and safety legislation. Controls on tanks for class 9 substances not included in SWI as these are environmental controls.
2.1 to 2.5	–	These sections not included in the SWI as they cover how a tank is certified.	This material to be included in performance standard for certifiers.
2.6	–	Text not included in the SWI: 'Where all or some of these details are not marked on the tank but the required information can be determined from documentary evidence, this may form the basis of the markings. The determination of the material of construction of the stationary container system is to be ascertained wherever possible e.g. mild steel, specific grade of stainless steel, type of fibreglass resin and the layering details etc.'	This material to be included in performance standard for certifiers.
2.7	–	Text not included in the SWI: 'The requirements of Schedule 8 clauses 81 and 82 of the Transfer Notice are to be complied with as from the date of issue of the first Stationary Container Test Certificate.'	Redundant provision.
2.8	8	Maintenance and repair These provisions are incorporated into clause 8 of the SWI in a consolidated form	Align with health and safety legislation.
2.10	–	Section 2.10 on Inventory Control not included in the SWI.	This material is guidance only.
2.11	–	Test Certification Text on duration on stationary container test certificates not included in the SWI	Redundant provision.
4.3	Part 3	Text not included in the SWI: '...and the secondary containment is not subject to the collection of rainwater, ...'	Redundant provision.
4.4	Part 3	Text not included in the SWI: 4.4.Test Compliance Certification Note that Schedule 8, clause 84 (a) (iii) of the Transfer Notice, states that a test certificate for a movable tank is not invalidated simply by virtue of the tank being relocated.	Redundant provision.
5.1	Part 4	Text not included in the SWI: 'The outer skin of a double skin stationary tank or a tank constructed to UL2085, SWRI 95-03 or SWRI 93-01 is the secondary containment system (i.e. the skin which contains a leak in the event of a failure of the primary tank).'	Redundant provision.
7.1A	Part 6	Clause 7.1A on Polyethylene Rotationally Moulded Tanks is not included in the SWI as these tanks are now past their service life.	Redundant provision.
8.1	Part 7	Text on assessment of a stationary container system not included in SWI.	This material to be incorporated in a performance standard.

REF IN HSNOCOP 13	SWI PROVISIONS	CHANGE MADE	REASON
8.1	Part 7	Definitions of environmental sensitivity zones deleted as these relate to controls on environmental risk rather than the health and safety risk. The concept of 'high risk place' has been adopted to control for risk of leaks that threaten the health and safety of any person.	Align with health and safety legislation.
8.3	Part 7	Text not included in the SWI: 'In circumstances where the secondary containment system is not considered to comply with the requirements of the Hazardous Substances (Emergency Management) Regulations or this Code, the stationary tank should be considered as though it did not have secondary containment.'	Text is redundant.
8.4	Part 7	Text on below-ground stationary tanks installed in Zone A, Zone B, and Zone C amended to align with health and safety legislation.	Align with health and safety legislation.
9	–	Duration of existing stationary container system test certificate not included in SWI as this is now provided for in regulation.	Redundant provisions.
10	–	Controls on stationary tanks containing substances with class 9 hazard classification not included in SWI.	Align with health and safety legislation.
Appendix 1, section 1.3	Schedule 5	Text in Appendix 1, clause 1.3 is not included in the SWI.	Redundant provision. Requirement is now covered by the definition of below ground stationary tank in the regulations. A tank that is unable to meet the definition in the regulations is unable to be certified in accordance with the SWI unless it was a tank covered by other provisions.
Appendix 1, section 1.7	Schedule 5, clause 6	Text in Appendix 1, clause 1.7(3) modified in the SWI to remove provision for locating the sump such that water cannot overlie the opening as this is not a health and safety provision.	Clarification to align with regulations.
Appendix 3	–	Appendix not included in the SWI	Appendix redundant.
Appendix 4, paragraph 7	Schedule 2, clause 4	Text on water accumulation in a compound modified in the SWI to better align with health and safety legislation.	Text amended to better align with health and safety legislation.
Appendix 6	–	Appendix not included in the SWI.	Appendix redundant.
Appendix 7	–	Appendix not included in the SWI.	This material to be included in performance standard for certifiers.

Disclaimer

WorkSafe New Zealand has made every effort to ensure the information contained in this publication is reliable, but makes no guarantee of its completeness. WorkSafe may change the contents of this guide at any time without notice.

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