



Consultation Document

Updating the Health and Safety in Employment (Pipelines) Regulations 1999 to reflect current industry standards

9/12/2021 – 4/02/2022



How to have your say

Making a submission

The Ministry of Business, Innovation and Employment (MBIE) is seeking comments on this consultation paper by 4 February 2022.

When making a submission, please include your name, the name of your organisation (if applicable), and your contact details. We have prepared a response template for you, which can be found on the consultation page of the MBIE website.

Send your submission as a Microsoft Word document or PDF to HSWRegs@mbie.govt.nz

Alternatively you can post your submission to:

Health and Safety Policy
Workplace Relations and Safety Policy
Ministry of Business, Innovation and Employment
PO Box 1473
Wellington 6140

Who can make a submission?

MBIE welcomes feedback from all interested parties, including pipeline operators, workers, interested industry bodies, and the public.

Use of information

Your submission may be made public, or the content included in a summary or other report about this consultation process. By making a submission, we consider you have consented to this use, unless you clearly specify otherwise in your submission.

Release of information

Release of submissions is subject to the *Official Information Act 1982*. Please tell us as part of your submission if you have any objection to the release of any information in the submission, which parts you consider should be withheld, and include your reasons for withholding the information (for example, commercially sensitive material). We will consider any objections you note and consult with you when responding to requests under the *Official Information Act 1982*.

Please indicate on the front of your submission if it contains confidential information and mark the text accordingly. If you wish to make a submission which includes confidential information, please send us a separate version excluding the relevant information for publication on our website.



Private information

The Privacy Act 2020 applies to submissions. Any personal information you supply to MBIE in the course of making a submission will only be used for the purpose of assisting in the development of policy advice in relation to this issue. Please clearly indicate in the cover letter or e-mail accompanying your submission if you do not wish your name, or any other personal information, to be included in any summary of submissions that MBIE may publish.



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Why we are consulting?

The Refinery to Auckland Pipeline (RAP), which transports diesel, petrol and jet fuel from Marsden Point Oil Refinery into Auckland, was shut down for ten days following detection of a leak on 14 September 2017. The pipeline was damaged by a digger on an unoccupied property in Ruakākā three years earlier. At the time, no one was informed that the pipeline had been struck, and over time the pipe weakened and eventually ruptured, causing jet fuel to leak into several properties.

The leak shut the RAP down for ten days, resulting in significant disruption to operations at Auckland Airport. The RAP supplies almost all of Auckland's diesel and petrol, and is the only supply of jet fuel to Auckland Airport. Fuel companies were able to transport petrol and diesel into the Auckland area by truck from other parts of the country. However, there was no equivalent alternative route for jet fuel. Airlines flying out of Auckland Airport had to limit their use of jet fuel to 30% of their usual usage, which caused significant disruption to flights to and from Auckland.

The Auckland Fuel Supply Disruption Inquiry (the Inquiry) was established on 10 December 2018, to investigate and provide recommendations on the rupture. The Inquiry submitted its final report, [Government Inquiry into The Auckland Fuel Supply Disruption](#), on 22 August 2019, making 21 recommendations, nine for industry and 12 for Government. The recommendations focused on three key areas for improvement:

- Improving protection of fuel pipelines and other critical infrastructure
- Better planning and preparation for fuel emergencies
- Incentivising timely investment in fuel supply chain infrastructure.

The Government has since taken several actions to address the Inquiry's recommendations in relation to fuel emergency management, such as releasing the National Fuel Plan and convening Fuel Sector Coordination Entity (SCE) meetings with key industry players to discuss contingency planning. Refining NZ has also provided the Government with regular updates on its actions to protect their fuel pipeline.

The Inquiry's recommendations that aim to incentivise investment in fuel infrastructure primarily focused on the jet fuel infrastructure at Auckland Airport. As COVID-19 has led to uncertainty about jet fuel demand and New Zealand's fuel supply chain is undergoing significant changes due to the planned closure of the Marsden Point Oil Refinery, it is difficult for fuel companies to make significant investments in the jet fuel infrastructure at Auckland Airport at present. In this context, the Government is currently prioritising the development of policies for ensuring that New Zealand will have sufficient onshore fuel stocks if/when the Marsden Point Oil Refinery closes, rather than developing regulatory tools that aim to accelerate private sector's investments in jet fuel infrastructure at Auckland Airport.

One of the Inquiry's recommendations to Government was to update the Health and Safety in Employment (Pipelines) Regulations 1999 (the Regulations) so that the legal requirements relating to pipeline operations match the current industry standards. The Government has accepted this recommendation, and this consultation document seeks your feedback on this



recommendation and the Government's response. Up-to-date and effective regulation is crucial, both in terms of maintaining public safety and national fuel supply security.



The Pipeline Regulations

The Regulations set out general and specific duties relating to the management of hazardous liquids, vapours, and gases relating to pipelines, identification of pipeline locations, and pipeline operations. MBIE administers the Regulations, and WorkSafe New Zealand is the regulator.

We are consulting on Regulation 8, which can be found in full in Annex 1.

Regulation 8

Regulation 8(1) of the Regulations requires, so far as is reasonably practicable, that a pipeline operation is designed, constructed, operated, and maintained, and suspended or abandoned in accordance with industry standards and specify four sets of standards from which an operator can choose:

- (a) NZS/AS 2885, Pipelines-Gas and Liquid Petroleum, comprising—
 - (i) 2885 1 Part 1: Design and Construction, 1997; and
 - (ii) 2885 2 Part 2: Welding, 1995; and
 - (iii) 2885 3 Part 3: Operation and Maintenance, 1997; or
- (b) NZS 5223, Code of Practice for High Pressure Gas and Petroleum Liquids Pipelines 1987; or
- (c) the provisions of ANSI B 31, American National Standards Institute Code for Pressure Piping, comprising—
 - (i) ASME B 31.3:1999, Chemical Plant and Petroleum Refinery Piping, 1990; and
 - (ii) ASME B 31.4:1998, Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols, 1989; and
 - (iii) ASME B 31.8:1995, Gas Transmission and Distribution Systems, 1989; or
- (d) the Institute of Petroleum Pipeline Safety Code (IP Part 6), 1982.

Regulation 8(2) provides that, if the standards are not applicable to any part of the pipeline operation, for example if they are out of date, the operator must, so far as is reasonably practicable, ensure that part of the pipeline operation is designed, built and operated in accordance with generally accepted and appropriate industry practice.

What is the issue?

All of the standards listed in Regulation 8(1) are now out of date.

Parts 1, 2 and 3 of the AS(/NZS) 2885 series were revised in 2018, 2016 and 2012 respectively to reflect current industry practice. Parts 1 and 2, which set standards for design & construction and welding respectively, were jointly developed by Australia and New Zealand. Part 3, which provides guidance on the operation and maintenance of pipelines, was solely developed by Standards Australia.



NZS/AS 5223 (1987) is no longer used for new pipelines but is included in the Regulations as it still applies to pipelines predating the 1999 Regulations.

The ASME B31 standards are not commonly used for transmission pipelines but are sometimes used for pipework and fitting mainly in pipeline stations and facilities. When compared with the AS(/NZS) 2885 series, the ASME B31 Standards may not have comprehensive relevant information for land stability and seismic design and pipeline safety management system requirements.

The Institute of Petroleum Pipeline Safety Code (IP Part 6) 1982 is obsolete and has no replacement.

WorkSafe guidance on transmission pipelines issued in 2002 recommends that preference be given to AS(/NZS) 2885 series.¹ These standards are commonly used in the oil and gas industries.

The Inquiry established that the 2012 version of AS 2885.3 reflects current industry practice standards for operation and maintenance of gas and liquid petroleum pipelines in Australia and New Zealand. These revised standards have been followed by some Persons Conducting a Business or Undertaking (PCBUs) as generally accepted and appropriate industry practice, despite not being referenced in the Regulations. The Inquiry recommended that New Zealand law should require the industry to meet the current industry standards.

From a health and safety standpoint, this means that Regulation 8(1) in its current form does not prescribe the most up-to-date safety standards for pipeline operators. Updating the Regulation is necessary to get better consistency in safety practices, and from this, to mitigate any risk to public and worker safety and the security of the national fuel supply.

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| 1 | Do you agree or disagree that there is an issue with outdated standards in Regulation 8(1)? If you disagree, please outline why. |
| 2 | Are there any additional issues with Regulation 8 we should consider? If yes, what are they? |

What is the proposal?

We propose to amend Regulation 8(1) to include a provision that requires employers to ensure that the pipeline operation is designed, constructed, operated, maintained, and suspended or abandoned, in accordance with the requirements set out in a relevant safe work instrument (SWI).

A SWI is a legislative tool provided for under the Health and Safety at Work Act 2015 (the HSW Act). SWIs are developed by WorkSafe in consultation with appropriate parties and approved

¹ <https://worksafe.govt.nz/topic-and-industry/petroleum/transmission-pipelines-certificate-of-fitness-for-high-pressure-gas-and-liquids/>



by the Minister for Workplace Relations and Safety. They are often industry-specific, and better lend themselves to periodic adjustment of technical details or standards that change relatively frequently. So, they are well suited to address this policy issue.

WorkSafe will develop a SWI that prescribes the most up-to-date industry standards on pipeline operations. The proposed standards that will be referenced in the SWI are in the section below titled, 'Standards in Safe Work Instrument'.

We are not proposing to directly reference the latest industry standards in the Regulation. While this would fix the issue of the outdated standard, it would run the risk of the standard citation becoming outdated again. In the time since the 1997 Standard was adopted in New Zealand, the Standard was updated twice in Australia as technology, industry practice and the appropriate requirements changed. We are recommending a SWI because they can be updated more easily and promptly than the Regulation itself, allowing standards to keep pace with current industry practice and safety standards. This is a more effective solution to ensure that the RAP and other petroleum-carrying pipelines that are essential to NZ's fuel supply adhere to the most up-to-date standards.

We have assessed several other options in considering how to respond to the Inquiry's recommendation. Those options were:

- ***Do nothing*** – Feedback from industry is that most pipeline owners and operators are already abiding by the most up-to-date standards and practice in their operation, even though New Zealand's Pipelines regulations are out of date. Notwithstanding this, updated standards increase certainty for industry and require that all operators are following the safest practices in their work. We, as a result, do not consider doing nothing to be appropriate.
- ***Do a full review and update of the Pipelines regulations*** – The Pipelines regulations are still aligned with old legislation (Health and Safety in Employment Act 1992), so need to be updated at some stage to align with the legislative framework and the HSW Act terminology. There are also several other, non-critical issues with the current Pipelines regulations that could be updated. MBIE and WorkSafe agree that our proposed approach in this document, to amend Regulation 8 to add a provision for an SWI, addresses the key critical issue in the most timely and efficient manner. Further, the Inquiry only recommended an update to Regulation 8. MBIE plans to do a complete review and update of the Pipelines regulations in coming years. We have discounted taking forward a full review as an option, in the interim.

Regulation 8(2), which applies to situations where the standards referenced in Regulation 8(1) are not applicable to any part of the pipeline operation, requires duty holders to ensure that that part of the pipeline operation is done in accordance with generally accepted and appropriate industry practice. This covers situations where there may be an update to standards but the SWI has not yet been updated accordingly.



3 Do you agree or disagree with the proposal to amend the current Regulations to include a provision requiring compliance with a relevant Safe Work Instrument? If you disagree, please outline why.



Standards in Safe Work Instrument

WorkSafe has provided MBIE with the standards that they plan to refer to in the SWI if the proposed change to Regulation 8(1) goes ahead. It is intended that this consultation document will satisfy the requirements for the SWI to be made without the need for a further consultation process.

Two sets of standards will be referred to in the SWI. These are the *AS(/NZS) 2885 series* and the *ASME B31 series*.

The *AS(/NZS) 2885 series* is recognised by industry and WorkSafe as best practice for pipeline operation in New Zealand. This series has been revised since the Health and Safety in Employment (Pipelines) Regulations 1999 were last amended, including the addition of new parts. It is important these changes are recognised to ensure the highest levels of health and safety are possible.

The Pipeline Regulations currently refer to ANSI B 31, *American National Standards Institute Code for Pressure Piping* which has been replaced by ASME B31 *American Society for Mechanical Engineering Code for Pressure Piping*. While the preference is for *AS(/NZS) 2885* to be used where possible, there are some situations where ASME B31 applies to particular types of pipelines (for example geothermal pipelines) and can be used in conjunction with the relevant parts of *AS(/NZS) 2885*.

The full *AS(/NZS) 2885 series* is as follows:

AS(/NZS) 2885, Pipelines – Gas and Liquid Petroleum series

- AS2885.0-2018, Part 0: General requirements
- AS/NZS 2885.1-2018, Part 1: Design and Construction
- AS/NZS 2885.2-2020, Part 2: Welding
- AS 2885.3-2012, Part 3: Operation and Maintenance
- AS/NZS 2885.4-2016, Part 4: Submarine Pipeline System
- AS 2885.5-2020, Part 5: Field Pressure Testing
- AS/NZS 2885.6-2018, Part 6: Pipeline Safety Management

The full reference to the B31 standards is as follows:

ASME B31 American Society for Mechanical Engineering Code for Pressure Piping

- ASME B31.1-2020 Power Piping
- ASME B31.3-2020 Process Piping
- ASME B31.4-2019 Pipeline Transportation Systems For Liquids And Slurries
- ASME B31.8-2020 Gas Transmission and Distribution System

WorkSafe is unable to draft the SWI to set out these standards unless there is provision for it in the Regulations. We have included an example in Appendix 2 of an existing SWI under different regulations to demonstrate what a future pipelines SWI may look like.



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| 4 | Do you agree or disagree with the SWI referencing the standards proposed above? If you disagree, please outline why. |
| 5 | Do you think that the ASME B31 standards are still relevant to pipelines in New Zealand, or is it sufficient to refer to AS(/NZS) 2885 only? |



Offence and transitional provisions

It is an offence for a person to contravene a provision of the Health and Safety in Employment (Pipelines) Regulations 1999 (see clause 2(4), Schedule 1 of the Health and Safety at Work Act 2015). A person who contravenes the Regulations commits an offence and is liable on conviction to a fine not exceeding \$50,000. We consider the existing offence provision is sufficient, and a change would not provide substantive benefits. Therefore, we propose to retain this provision for contravention of the SWI.

6 Do you agree or disagree with retaining the current offence provision in the Health and Safety at Work Act 2015? If you disagree, please outline why.

The transitional period refers to when the updated regulation, and the provision for the safe work instrument, will come into legal force. This transition period will provide for the amended regulation to come into force on the 28th day after the date of its notification in the Gazette. Because pipeline owners and operators are, for the most part, already abiding by the most updated version the standard, we expect the impact of the change to be minimal and that there is no reason for a phased transition.

Under our proposed approach, we anticipate the changes would come into force from August 2022.

7 Do you agree or disagree with our proposal that an immediate transition - in est. August 2022 - would be appropriate for this regulatory change? If you disagree, please outline why.



Impacts and Risks

We consider that this proposal will have positive impacts on stakeholders in future because SWIs can be amended in a more flexible and timely manner compared to regulations, ensuring that standards relating to the safe design, construction and operation of fuel pipelines align with best practice. This has associated benefits for the industry in terms of protecting the national supply of fuel and infrastructure, while improving public safety outcomes.

As we are proposing to update the regulation to reflect broad industry practice, we have assessed the regulatory impacts of our proposal as minor.

The proposed changes align the regulation with standards most industry operators are already following. Impacts on industry practice, training and other practical factors will be minimal, as a result. The proposal to replace the reference to standards with a reference to a SWI has no specific regulatory impact.

8

Do you agree or disagree with the impacts identified in this proposal? If you disagree, please outline why. What additional impacts do we need to consider?



Annex 1: Regulation 8

8. Design, construction, operation, maintenance, suspension, and abandonment standards

- (1) Subject to subclause (2), an employer must, so far as is reasonably practicable, ensure that the pipeline operation is designed, constructed, operated, and maintained, and suspended or abandoned (as the case may be), in accordance with the appropriate part or parts of—
 - (a) NZS/AS 2885, Pipelines-Gas and Liquid Petroleum, comprising—
 - (i) 2885 1 Part 1: Design and Construction, 1997; and
 - (ii) 2885 2 Part 2: Welding, 1995; and
 - (iii) 2885 3 Part 3: Operation and Maintenance, 1997; or
 - (b) NZS 5223, Code of Practice for High Pressure Gas and Petroleum Liquids Pipelines 1987; or
 - (c) the provisions of ANSI B 31, American National Standards Institute Code for Pressure Piping, comprising—
 - (i) ASME B 31.3:1999, Chemical Plant and Petroleum Refinery Piping, 1990; and
 - (ii) ASME B 31.4:1998, Liquid Transportation Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols, 1989; and
 - (iii) ASME B 31.8:1995, Gas Transmission and Distribution Systems, 1989; or
 - (d) the Institute of Petroleum Pipeline Safety Code (IP Part 6), 1982.
- (2) If the documents referred to in subclause (1) are not applicable to any part of the pipeline operation, the employer must, so far as is reasonably practicable, ensure that that part of the pipeline operation is designed, constructed, operated, and maintained, and suspended or abandoned (as the case may be), in accordance with generally accepted and appropriate industry practice.



Annex 2: Health and Safety at Work (Asbestos – Prescribed Relevant Courses) Safe Work Instrument 2017

Pursuant to section 227 of the Health and Safety at Work Act 2015, the Minister for Workplace Relations and Safety, after being satisfied that appropriate consultation has been carried out under section 227(3), approves the following safe work instrument, which has been developed by WorkSafe New Zealand, and is referred to the definition of ‘relevant course’ in regulation 3(1) of the Health and Safety at Work (Asbestos) Regulations 2016.

1 Title

This is the Health and Safety at Work (Asbestos - Prescribed Relevant Courses) Safe Work Instrument 2017.

2 Commencement

This safe work instrument comes into force on 1 June 2017.

3 Interpretation

(1) In this safe work instrument, unless the context otherwise requires,—

Act means the Health and Safety at Work Act 2015

NZQA means New Zealand Qualifications Authority

NZQA unit standard 29765 means NZQA unit standard (remove non-friable asbestos) or any substantially equivalent NZQA unit standard that replaces it

NZQA unit standard 29766 means NZQA unit standard (remove friable asbestos) or any substantially equivalent NZQA unit standard that replaces it

NZQA unit standard 29767 means NZQA unit standard (supervise asbestos removal) or any substantially equivalent NZQA unit standard that replaces it

Regulations means the Health and Safety at Work (Asbestos) Regulations 2016.

(2) Any term or expression that is defined in the Act or the Regulations and used, but not defined, in this safe work instrument has the same meaning as in the Act or the Regulations.

4 Relevant course for supervision of asbestos removal work

The relevant course for the supervision of asbestos removal work is a course that includes NZQA unit standard 29767.

5 Relevant course for Class A asbestos removal work



The relevant course for Class A asbestos removal work is a course that includes NZQA unit standard 29766.

6 Relevant course for Class B asbestos removal work

The relevant course for Class B asbestos removal work is a course that includes NZQA unit standard 29765.

Dated at Wellington this 8th day of May 2017.

HON MICHAEL WOODHOUSE

Minister for Workplace Relations and Safety

Date of notification in *Gazette*: 18 May 2017

This safe work instrument is administered by WorkSafe New Zealand.