EPA VICTORIA

Reasonably practicable

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Reasonably practicable

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Overview

In Victoria, new laws will come into effect that are designed to prevent harm to human health and the environment from pollution and waste.

At the centre of the *Environment Protection Act 2017* (the Act)[1] is the **general environmental duty** (GED).

The GED is a new approach that focuses on preventing harm from waste and pollution rather than managing impacts after harm has already occurred.

Under the Act, three duties require you to minimise or respond to risks so far as reasonably practicable.

This guidance will focus on two of those duties, which are:

General environmental duty[2]

The GED requires that '*any person who is engaging in an activity that may give rise to risks of harm to human health or the environment from pollution or waste must minimise those risks, so far as reasonably practicable*'.

Duty to manage contaminated land[3]

If you are in control of contaminated land you '*must minimise risks of harm to human health and the environment from the contaminated land so far as reasonably practicable*'.

The duty to take action to respond to harm caused by a pollution incident[4] also requires you to respond so far as reasonably practicable. This will be the subject of separate guidance.

[1] As amended by the *Environment Protection Amendment Act 2018*.
[2] Section 25 of *Environment Protection Act 2017* (as amended by *Environment Protection Amendment Act 2018*).
[3] Section 39 of *Environment Protection Act 2017* (as amended by *Environment Protection Amendment Act 2018*).
[4] Section 31 of *Environment Protection Act 2017* (as amended by *Environment Protection Amendment Act 2018*).

Reasonably practicable

How to determine what is reasonably practicable

Doing what is **reasonably practicable** means that you must *put in proportionate controls to mitigate or minimise the risk of harm.*

Controls that eliminate or substitute the source of the risk are the most effective, followed by engineering or building controls, and finally training and site practices. Often a combination of all these controls will be needed.

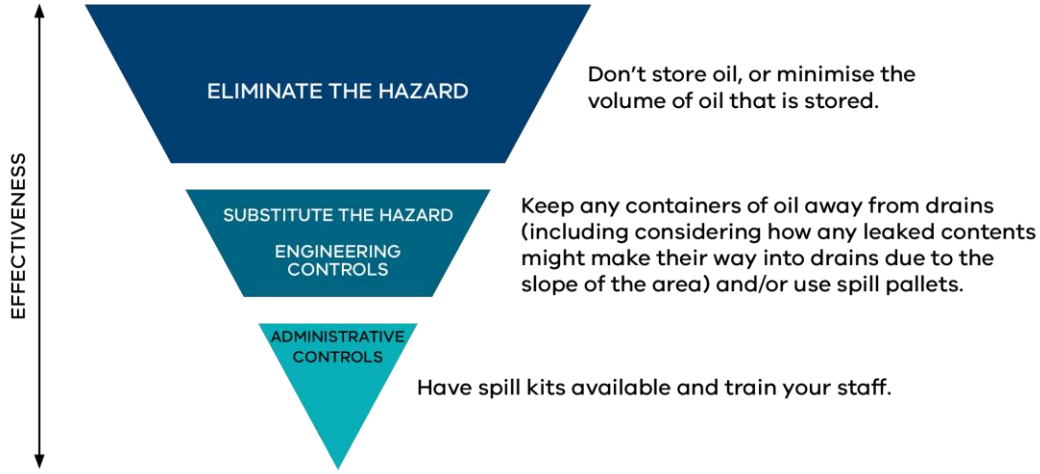
Being **proportionate** means the greater the risk of harm, the greater the expectation for you to manage it. You do this by demonstrating that you've considered and implemented the most suitable controls that are available to eliminate or minimise the harm.

Reasonably practicable

When you are dealing with a common risk or harm, you can often show you have done what is reasonably practicable if:

- you have adopted well established effective practices or controls to eliminate or manage risk; and/or
- where well established practices or controls do not exist, you show you have assessed and adopted effective controls.

For example, a common risk to the environment is a spill from a container of oil. Considering the risk and the suitable controls that may be available to eliminate or minimise the harm means that you may consider matters such as:



Guidance from EPA and industry might help you to find:

- common, effective practices
- steps to follow to assess risks
- controls to eliminate or manage risk.

In some cases, you may need to look further for options to control your risk. Where EPA or industry guidance is not available or where a range of approaches may be effective, seek further advice.

It is always your obligation to understand your risks and the right approach to manage them.

Reasonably practicable

To determine what is reasonably practicable it is important to consider the level or scale of risk or harm from your activities, a pollution incident, or contaminated land.

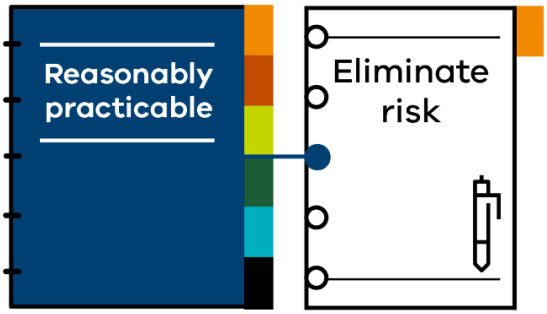
To show you have thought about what is reasonably practicable, consider these **six factors**:

1. **Eliminate first:** Can you eliminate the risk?
2. **Likelihood:** What's the chance that harm will occur?
3. **Degree (consequence):** How severe could the harm be on human health or the environment?
4. **Your knowledge about the risks:** What do you know, or what can you find out, about the risks your activities pose?
5. **Availability and suitability:** What technology, processes or equipment are available to control the risk? What controls are suitable for use in your circumstances?
6. **Cost:** How much does the control cost to put in place compared to how effective it would be in reducing the risk?

You need to consider these factors together as they will help you to determine what is reasonably practicable to control your risks.

Reasonably practicable

1. Eliminate first



Hierarchy of controls

The measures that reduce risk most are preferred over measures that are less effective in reducing risks.

1. Eliminate the hazard to eliminate the risk – this is the most effective control.
2. Reduce the risks through substitution or physical engineering controls for the hazard.
3. Lastly, change people's behaviour through administrative controls like procedures and training, and using personal protective equipment (PPE).

Start by considering how you can eliminate the risks. This may be achieved by redesigning your activities to remove the source of risk in the first place.

Example: Ahmed manages an automotive repair shop. Ahmed's activities include changing engine oil in the cars he services daily. To do this activity, the repair shop stores both new (unused) and waste (used) engine oils onsite. The amount stored can service his regular client intake.

Ahmed and his staff routinely use the new oil throughout the day. He does not feel that it is reasonably practicable to ***eliminate*** *the oil storage, or reduce the amount that is stored, at the site. Ahmed only stores the waste engine oil on site temporarily. He has engaged an appropriate waste transport company to transfer the waste oil to where it is able to be legally deposited.*

As Ahmed must store the oils onsite, he cannot ***eliminate*** *the risks that storing new and waste oil brings. Ahmed must now consider what controls he can implement that will reduce the risks, so far as reasonably practicable*.

Identifying ways to eliminate risk is best done *before* commencing the activity and using what opportunities you have to make risk elimination one of the goals during design.

What if I can't eliminate my risk?

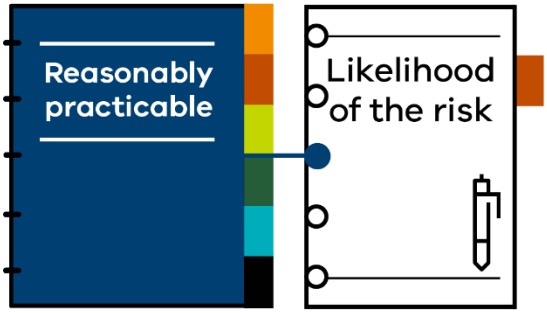
If it is not reasonably practicable to eliminate the risks, you must consider how you can reduce the risks.

In the scenario on page 7, Ahmed may reduce his risks by considering where and how the oil in his repair shop is used and stored.

Refer to the hierarchy of controls and apply it to your site.

To apply the hierarchy of controls, consider these factors:

2. Likelihood



Consider the **likelihood** or chance of a harm occurring. The greater the likelihood, the greater its importance when working out what is reasonably practicable. You can understand the likelihood or chance by considering:

- how often the activity that creates the hazard takes place
- whether an event has occurred before on your site
- whether the harm has commonly occurred on other sites
- information from suppliers or manufacturers.

If harm is more likely to occur, you will need to focus more on eliminating or minimising the risk.

Example: At Ahmed's worksite, the new and waste engine oils are currently stored near a stormwater drain inlet. They are also near a high traffic area where cars waiting to be serviced are parked. Staff frequently move the vehicles about this area. Also, a worker carries waste oil to the waste tank past the stormwater inlet several times a day.

*Ahmed knows that because the engine oils are stored near the high traffic area, there is a greater **likelihood** of a spill given the clear risk of a vehicle impact causing a spill or leak. He also knows that there is a risk that the waste oil can be spilt, given the number of times each day that waste oil is handled.*

Sites with higher likelihood will need to put more effort into risk reduction – starting with looking at whether the risk (of impact from vehicles causing a spill) can be eliminated or reduced.

3. Degree (or consequence)

Consider the **degree** (or consequence or impact on people or the environment) of the harm. If the impact of the harm is higher, then you will need to focus more on eliminating or reducing the risk.

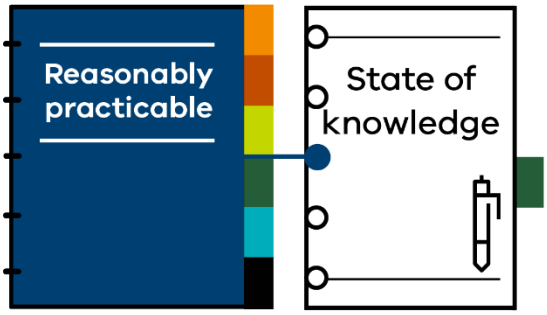
The degree of harm carries more importance in especially sensitive environments, such as when you are near to neighbours, or a creek. However, under the Act, harm includes any adverse impact on the environment of any degree or duration. This includes impacts that add up over time (known as “cumulative” impacts). Even where you are in an industrial setting, all levels of possible harm to the environment or human health matter and must be considered.

Example: At Ahmed’s worksite the engine oil being stored near to a stormwater drain inlet. It is in an area where his staff frequently pass through. This poses a risk to the environment and human health.

Ahmed knows that engine oil needs to be changed because it picks up a variety of hazardous contaminants when used in engines and transmissions. These contaminants include heavy metals and hydrocarbons. If the waste engine oil and the contaminants it contains are stored inappropriately and allowed to escape into the environment, they can harm humans, plants and animals, including fish.

*The **degree** (consequence) of the harm possible may be significant to the waterways and fish life if the waste oil was to spill into the stormwater drain. Also a leak or spill may cause harm to his staff or the community near his worksite.*

4. Knowledge about the risks



You are required to have, and seek out, knowledge about the risks your activities pose to the environment and human health. You are also required to know how to address them.

The knowledge a duty holder's actions will be assessed against includes both:

- what they *actually know*, and
- what someone in their circumstances *should reasonably know* about the risks.

Together, these form the 'state of knowledge', which helps define the scope of a duty holder's duties. Obtaining this knowledge means drawing on reliable, reputable sources. Existing knowledge may come from business and industry organisations, regulatory and government agencies and other independent and/or international organisations.

The more knowledge you have about a potential risk, the more likely you are to be able to foresee the potential for harm, and take action to avoid it. Similarly, failing to gain knowledge from other duty holders in the same situation as you will mean you are unlikely to be able to comply with your duties.

In many cases, where there is a clear, accepted and effective control or set of controls set out in reputable guidelines, standards or industry practices, this may represent a good reflection of what is *reasonably practicable* for your situation.

Example: Ahmed has an obligation to have, or seek out, information about the risks and available controls to manage the risks posed by storing new and waste engine oils at the worksite.

Ahmed researches industry guidance available to him about the hazardous properties of the waste, and about safe storage and handling of liquids, such as oils. He does this by reading the labels on the oils he uses, and seeking out guidance from industry and EPA Victoria. The guidance includes reading materials such as EPA's Liquid storage and handling guidelines (EPA publication 1698).

*Because Ahmed wants to build on his **knowledge**, he looks to understand what others in his industry do. Ahmed takes the time to talk to specialists in his field and his industry association, to understand what controls others have put in place that may also be available to him. Together these sources inform the state of knowledge at a point in time.*

5. Availability and suitability

You need to consider what controls are **available**, and also what is **suitable** to eliminate or reduce the risk. This does not just mean looking at control equipment to purchase; it can also mean implementing a work process change.

A way to eliminate or reduce a hazard or risk is generally *available* if it:

- is feasible to purchase or manufacture the control measure; or
- where it is a work process, it is feasible to implement in your circumstances.

A way to eliminate or reduce a hazard or risk is generally *suitable* if it:

- is effective in eliminating or reducing the likelihood or degree of harm from a hazard or risk
- does not introduce new and higher risks, having regard to all of the circumstances
- is a practical measure given the circumstances in which the hazard or risk exists.

When considering these matters, you may think about the hierarchy of controls. For example, if advanced technology or equipment are not available to control the risks (i.e. you cannot **eliminate** the risk), you may consider other controls like moving the activity to a different (safer) location on site (**engineering controls**), or by training your staff on an effective way to undertake the activity which minimises the risk (**administrative controls**).

Reasonably practicable

Example: Ahmed can identify control measures that are available by discussing his activities with his suppliers. He can also research risk control options that are for sale, or new processes that he could adopt by keeping up with industry and EPA guidance. For example, many different spill prevention solutions are currently available that Ahmed could consider using.

Ahmed can consider whether the controls are suitable for his circumstances by understanding how they would work, what adjustments he might need to make to his site or process and how effective the options would be to manage the risks. Some options may not be suitable because of other hazards at his site. For example, some available spill kits may not be suitable for use at his site because of the flammability of spilt engine oil. Ahmed would have to check which kits were compatible with oil.

Ahmed might also consider using signs to reduce the risk of collisions. However, if the signs are in English, this may not be suitable for all members of his team. In this case, Ahmed needs to use signs with colours and pictures that will make clear the risks of driving in the area where the waste oil tank is located.

6. Cost

The cost of a specific solution that reduces the risk of harm must be considered against the reduction it could achieve.

Importantly, the most effective solution won't always be the most expensive. Likewise, a cheaper solution may not be the most effective available to control the risk.

For example, installing engineering controls may carry substantial costs, but these would be justified where they significantly reduce risks, especially where administrative controls such as training are unlikely to work well. Also, over time, maintaining *effective* administrative controls (like regular training and audits) may end up costing more than a control measure that does not require regular updating.

You are likely to have met your duty to a *reasonably practicable* standard, when you can demonstrate that increasing your resources to reduce the risk would not result in any meaningful reduction of that risk. This means you may consider whether:

- the investment required to implement the control(s) is disproportionate to the risk of harm, and therefore implementing that control(s) is not considered *reasonably practicable*; or
- implementing a more expensive or resource intensive control(s) would not result in an identifiable improvement in controlling the risk.

Considering these matters does not mean that you do not have to control your risk, but may help you identify whether what you have in place is already effective, or a different control you are proposing to implement is as effective in eliminating or minimising the risk.

Often using a combination of risk controls to minimise risk will be more financially viable than a single risk control measure and will achieve an equivalent level of risk minimisation.

Example: Ahmed has identified all the suitable controls available to him to manage the risks of harm posed by storing the new and waste engine oils on site.

*Ahmed is weighing up implementing a few controls that are effective at controlling the risk. Ahmed recognises that many of the controls available to him are simple, **cost** effective and easy to implement. However, some the controls also available to Ahmed are expensive and resource intensive to implement. Ahmed will think about whether the cost of implementing those controls is proportionate to the possible benefit they may bring to further reduce the risks.*

Ahmed has now considered:

1. *Can I eliminate the risk (eliminate)?*
2. *What is the chance that harm will occur (likelihood)?*
3. *How severe could the harm be to human health or the environment (degree or consequence)?*
4. *What do I know, or what can I find out about the risks (knowledge)?*
5. *What technology, processes or equipment are available and would be suitable to control the risk (availability and suitability)?*
6. *How does the cost of the control options compare to the harm that would be avoided?*

Ahmed can use this thinking to demonstrate that the controls he implements to eliminate or reduce the risk of harm, are ***reasonably practicable***.

Reasonably practicable can evolve over time

The state of knowledge on the risks to human health and the environment improves over time. New knowledge on risks arises and new opportunities to better manage risks arise through new and more affordable technology and techniques. The pace with which knowledge changes or improves is different for all industries and activities.

Duty holders need to review the risks that arise from their activities and the effectiveness of their approach to managing existing risks as new options become available.

You should also regularly review your understanding of the likelihood and consequence of your activities, and the controls you have in place to reduce the risk of harm to human health and the environment. By doing this you can ensure you continue to meet the current understanding of what is reasonably practicable.

Reasonably practicable

Available resources

For more information on preparing your business to be ready for the new laws, you can use the following resources to help you:

- *Industry guidance: supporting you to comply with the general environmental duty* (EPA publication 1741)
- Environmental risk management
- *Assessing and controlling risk: A guide for business* (EPA publication 1695)
- epa.vic.gov.au/for-business

Recognition statement

EPA acknowledges Victoria's First Nations peoples and their ongoing strength in practising the world's oldest living culture. We acknowledge the Traditional Owners of the land and water on which we live and work and pay our respect to their Elders past and present.

We acknowledge that:

- **Land and water is of spiritual, cultural and economic importance to Aboriginal people.**
- **All places in Victoria exist on the traditional country of Aboriginal Victorians.**
- **Aboriginal interests, needs and aspirations are integral to EPA's core business.**

In recognising and respecting thousands of years of environmental stewardship, Victorian Aboriginal peoples' and their culture is integral to EPA's regulatory remit to protect human health and environment from the harmful effects of pollution and waste. As part of our regulatory approach we seek to engage and work collaboratively to build a culturally safe and inclusive work environment that is inclusive of Aboriginal perspectives and values.

EPA encourages all Victorians to consider the ways in which they too can acknowledge, respect and protect Aboriginal cultural heritage.