



Managing thermal comfort at work

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Managing thermal comfort at work

KEY POINTS

- Thermal comfort describes whether a person feels hot, cold, or just right.
- Thermal comfort is influenced by many factors, not just air temperature.
- Maintaining a thermally comfortable environment can improve the morale and productivity of workers, as well as supporting health and safety.
- PCBUs must take all reasonably practicable action to prevent workers from experiencing thermal stress while working.
- The Health and Safety at Work Act 2015 (HSWA) does not state minimum or maximum safe temperatures for work.

1.0

Introduction

What is this guide about?

This guide offers information on how to manage thermal comfort at work.

It is written for PCBU's (a person conducting a business or undertaking) but can also be useful for workers and others in the workplace.

This quick guide explains the difference between:

- thermal comfort
- thermal discomfort
- thermal stress (which can cause temperature-related illness or injury).

It provides guidance on how to assess thermal comfort in your workplace and create a work environment that is thermally comfortable for your workers.

If there is a thermal stress risk in your workplace (rather than a thermal discomfort issue) see WorkSafe's [*Guidelines for the management of work in extremes of temperature*](#) for guidance on managing this risk.

HSWA does not state minimum or maximum safe temperatures for work

It is very difficult to give a maximum or minimum temperature for working based on air temperature alone. Air temperature only tells part of the story when it comes to the effects of exposure to high and low temperatures on people. How people are affected by temperature while working depends on a number of factors such as:

- humidity
- exposure to the sun or other radiant heat sources
- amount of air movement
- work demands - how physically demanding the work is
- what clothing or personal protective equipment (PPE) is worn
- personal health factors/tolerances.

Some industries where working in temperature extremes is a specific risk (such as mining), have requirements in their regulations and guidance about monitoring workplace temperatures. This guide does not override those requirements.

PCBUs must manage any risks from high or low temperatures at work

Temperature at work needs to be managed like any other potential hazard in the workplace. As a PCBU, you must first identify any hazards associated with exposure to very high or low temperatures, then eliminate the risk those hazards create so far as is reasonably practicable.

If the risk cannot be eliminated, you must minimise the risk (so far as is reasonably practicable) by substitution, isolation, and adding engineering controls. If it is not reasonably practicable to minimise with those controls, then administrative controls and lastly, personal protective equipment (PPE) should be used. See the sections [Managing heat at work](#) and [Managing cold at work](#) for examples.

For more detailed information on controlling health and safety risks at work generally, see Worksafe guide [Identifying, assessing and managing work risks](#)

2.0

What does the law say?

Your duty of care

Under HSWA's primary duty of care, PCBU's are required to ensure, so far as is reasonably practicable, the health and safety of workers. PCBU's must also provide a work environment that is without risks to worker health and safety.

Workers and other persons in the workplace also have a duty to take reasonable care to keep themselves, and others, safe while working.

See WorkSafe guide [*Introduction to the Health and Safety at Work Act*](#) for more information.

Involving workers (worker engagement)

You must engage with your workers when identifying the risks in your workplace, and when deciding on appropriate control measures. This includes how to deal with any temperature-related problems.

You have two duties:

- to engage with your workers on health and safety matters that may directly affect them, so far as is reasonably practicable, and
- to have practices that give your workers reasonable opportunities to participate in improving health and safety on an ongoing basis (these are known as worker participation practices).

See WorkSafe guide [*Worker engagement and participation*](#) for more information.

What does reasonably practicable mean?

Health and safety duties need to be performed so far as is reasonably practicable. There are two parts to 'reasonably practicable'. First consider what is possible in your circumstances to ensure health and safety. Then consider, of these possible actions, what is reasonable to do in your circumstances.

When deciding what is 'reasonably practicable', consider:

- How likely is the risk and how severe is the illness or injury that might result?
- What do you know, or should reasonably to know, about the hazard or risk and the ways of eliminating or minimising the risk?
- What is the availability of the control measures, and how suitable are they for the specific risk?
- What are the costs of the control measure and are the costs grossly disproportionate to the risk?

See WorkSafe guide [*Reasonably practicable*](#) for more information.

Consider a warehouse that may get uncomfortably hot for a few days at the height of summer each year. The PCBU consulted with the affected workers who suggested a number of control measures including:

- providing personal fans
- hiring portable air conditioning units
- fitting more fans and vents into the roof
- installing an air-conditioning system.

After consultation with the workers, considering the likelihood and severity of the risk, the suitability of the control measures and lastly cost, the PCBU decided to hire portable air conditioning units for the few days that it gets too hot.

3.0

Thermal comfort

What is thermal comfort?

Thermal comfort describes whether a person feels too hot, too cold, or just right. A person can be described as being 'thermally comfortable' when they are not feeling either too hot or too cold.

Thermal comfort can be very subjective. An environment that is comfortable for one person may feel too hot or cold to another and depends on many interacting environmental and personal influences, see the section 5.0 [Influences on thermal comfort](#)

Why is thermal comfort important?

By managing thermal comfort you are likely to improve the morale and productivity of your workers. This can improve health and safety. People working in uncomfortably hot or cold environments are more likely to behave unsafely because their ability to make decisions or perform manual tasks deteriorates. For example:

- people may take short-cuts to get out of hot or cold environments
- workers might not wear PPE properly in hot environments, increasing the risks of injury
- a worker's ability to concentrate on a task may start to drop off, increasing the risk of errors occurring.

You should aim to provide a thermally comfortable work environment

The following temperature ranges should provide thermal comfort for most people in an indoor environment*

	SUMMER	WINTER
Sedentary work	19-24°C	18-22°C
Physical work	16-21°C	16-19°C

TABLE 1:
Temperature ranges for thermal comfort

*These values assume:

- workers are wearing seasonally appropriate clothing
- the air speed is about 0.1-0.2 metres per second (without creating a draught where sedentary work is carried out)
- humidity levels are normal (40-70%)
- workers are not directly exposed to any radiant heat sources.

See section [Influences on thermal comfort](#) for more details.

4.0

Thermal discomfort

What is thermal discomfort?

A person feeling thermal discomfort will feel either too hot or too cold, but it is not extreme enough for them to suffer illness or injury as a direct result.

General and local thermal discomfort

General thermal discomfort is when a person's whole body feels uncomfortable. Local thermal discomfort is when only one part of a person's body feels uncomfortable, such as their hands or feet. What action you take to deal with thermal discomfort will depend on whether the worker is experiencing general or local discomfort.

Is it ok for people to experience thermal discomfort at work?

Because of varying personal factors (such as sex, weight, fitness and medical conditions), people can respond differently to the same thermal conditions. It may not be possible or practicable to achieve thermal comfort for all workers all the time.

While a work environment that causes thermal discomfort may not directly cause illness or injury, it does have many disadvantages, for example:

- workers can feel tired and irritable
- they may be less productive and make more mistakes with their work
- there's a greater risk of someone making a mistake that could result in an accident.

In an indoor environment, you should try to achieve an environment that suits the majority of workers. Provide personal options such as clothing layering for workers who need to add or take away layers to maintain their own comfort.

When working outdoors (where the thermal environment cannot always be controlled) you should consider how controlling workers' clothing, physical activity and timing of the work can reduce thermal discomfort (see sections 7.0 [Managing heat at work](#) and 8.0 [Managing cold at work](#) for examples).

Thermal stress

Thermal stress is more severe than thermal discomfort. It happens when the thermal environment is so extreme that the body begins to struggle to maintain a stable core temperature. It can result in heat-related or cold-related illness or injury to a person.

If there is a thermal stress risk (rather than a thermal discomfort issue), see WorkSafe's [Guidelines for the management of work in extremes of temperature](#) for guidance on managing this risk.

Heat-related illness and injury

Heat-related illnesses and injuries can happen when the body's means of controlling its internal core temperature starts to fail. As well as air temperature, factors such as work rate, humidity, and clothing may lead to heat-related illness or injury.

Heat-related illnesses and injuries are progressive and symptoms can include:

- headache
- dizziness
- heavy perspiration
- increased heart rate
- dehydration
- fainting
- heat rashes
- muscle cramps
- heat exhaustion (this is a serious condition)
- heat stroke (this is a serious, potentially fatal condition).

Cold-related illness and injury

Cold-related illness and injury occurs when workers are exposed to cold temperatures, strong or cold wind, dampness, and cold water. Skin temperature drops and the body has to work harder to maintain its internal core temperature. When the body is unable to warm itself, serious cold-related illnesses and injuries can occur, which can result in permanent tissue damage and death.

Cold stress is a risk especially when working outdoors in cold weather or working in artificially cold environments, such as refrigerated areas.

You can find more detailed information about preventing heat and cold-related illness and injury in WorkSafe's [*Guidelines for the management of work in extremes of temperature*](#)

5.0

Influences on thermal comfort

When most people think about how comfortable a work environment is, they think of the air temperature (measured using a thermometer). However there are many influences on how thermally comfortable a person may feel while working. These influences (environmental and personal) may be independent of each other, but together they contribute to a worker's overall feeling of thermal comfort or discomfort. Not everyone will respond the same way to a thermal environment.

Environmental influences

Air temperature

Air temperature is how hot or cold the air around us is. Although this is the easiest of all the influences to measure, it is not the only thing that needs to be considered. If air temperature is the only measurement taken, it's hard to predict how the temperature will affect people.

Humidity

Humidity is the moisture content of the air. Humidity is especially important in hot or high activity situations. If the air has a high moisture content (over 80%), sweat will not evaporate as quickly, slowing a worker's ability to stay cool and making them feel hotter.

Relative humidity of between 40% and 70% is ideal, as it usually doesn't have a major impact on thermal comfort.

Radiant heat

Radiant heat is emitted from anything that's hot, such as sunlight, furnaces, dryers, and ovens. In time it will heat the air, but will heat people and solid surfaces nearby more quickly.

Air speed

Air speed is the amount of air movement. Draughty or windy conditions will cool a person. This can help cool people in hot situations, but chill them in cold situations.

Personal influences

Clothing

Clothing insulates workers from the environment and also traps body heat. It can help keep workers warm in cold conditions, but hinder their ability to stay cool in hot conditions.

Physical activity

As physical activity increases, so does the body's heat production. In a cool situation, physical activity can help to warm a person. In a hot situation, physical activity can make a person feel even hotter.

Other factors

Other factors that may make a person more sensitive to high and low temperatures include:

- sex - males generally have a higher metabolic rate than females
- age - younger and older people in particular
- underlying health conditions
- body build and weight
- use of certain prescribed medicines
- use of substances such as alcohol or illegal drugs
- temporary health issues (such as diarrhoea, hangover, fever, dehydration, and fatigue).

How these influences interact to affect thermal comfort

Some of the above influences may work to cancel each other out, while others can combine to make people feel even hotter or colder. For example:

- high temperatures but with a high wind speed may mean workers still feel comfortable
- high temperatures and high humidity will make workers feel even hotter and put the body under extra stress
- low temperatures but with lots of physical activity may mean workers still feel comfortable
- high physical activity and high radiant heat will make workers feel even hotter and put the body under extra stress
- even on a cool day, a worker performing strenuous work, while wearing heavy PPE and exposed to radiant heat, could be at risk of overheating.



FIGURE 1:
Human comfort

6.0

Assessing thermal comfort at your work

Assessing thermal comfort at your place of work can be as simple as:

- asking your workers how comfortable they are, and
- making your own environmental observations.

Talk to your workers

You could ask your workers to rate themselves on the following scale:



FIGURE 2:
Thermal comfort scale

This will tell you if there is any problem with thermal comfort from your workers' point of view, and how severe or widespread it might be.

Observe thermal influences in your workplace

You should do your own assessment of the working environment, as well as asking workers about thermal comfort. Focus on the main thermal comfort factors, starting with the air temperature, then look at how the other five thermal comfort factors may be adding or taking away from how the air temperature is perceived.

The following checklists may help.

Air temperature

- What are the hottest or coolest parts of the day?
- What are the maximum or minimum temperatures?
- What is the average temperature?

Set up a thermometer in the area you want to measure, but place it out of direct sunlight and away from any radiant heat sources. Choose a period of time you want to take readings at, for example, hourly, two-hourly or over a particular part of the day.

Measurements should be taken daily for at least one to two weeks to get a reliable average.

Record the readings for future reference. If the environment is affected by seasonal factors, you may need to reassess at different times of the year.

Consider your air temperature findings in relation to other environmental and personal influences below.

Humidity

- Do any work processes create steam or moisture (eg a kitchen or laundry)?
- Is there a lot of (or a little) humidity in the area where you live and work?
- Do workers get very wet from sweat? In a dry environment, workers will hardly notice sweat because it evaporates easily. If workers are sweating a lot, the humidity may be high.

Radiant heat

- Is there a lot of direct sunlight in the place of work, or does heat radiate through poorly insulated building materials?
- Is there any office machinery such as large computer banks or photocopiers near work areas?
- Does any work take place close to a source of heat like a furnace or oven?

Air movement

- Is the air movement strong enough to create a cooling draft?
- Is the air movement just blowing hot air over workers or is it actually cooling them?
- Is the work environment stuffy or does it lack ventilation?

Physical activity

- Does anyone in your workplace have a job where medium to high levels of physical activity are required?
- Are workers mostly active or mostly sitting down?
- Are work tasks highly repetitive?

Clothing

- Are people sensibly clothed for the season and the temperature?
- Does anyone need to wear protective clothing or equipment that will prevent them from cooling down in hot conditions?

If thermal discomfort is an issue in your workplace

If only a few workers are reporting thermal discomfort and your observations do not show any obvious sources of discomfort, personal options (such as personal fans or clothing changes) may solve the issue.

If a significant number of your workers are complaining of being too hot or too cold (-3 to -2, or 2 to 3 on the scale in Figure 2) or you can see potential sources of thermal discomfort at your work, you should make changes to improve the work environment.

The following sections [7.0 Managing heat at work](#) and [8.0 Managing cold at work](#) offer practical examples of action you can take to manage thermal influences at work.

If thermal stress is a risk in your workplace

If you find there is a risk of thermal stress (rather than a thermal discomfort issue), you should take immediate action to improve the thermal environment to keep your workers safe from any temperature-related illnesses or injury. Stop work until the risk can be controlled.

A workplace health and safety professional can do a workplace risk assessment and develop a thermal stress management plan. You can find a list of workplace health and safety professionals on the [HAZANZ register](#) or contact the [New Zealand Occupational Hygiene Society](#)

More detailed information on how to manage temperature extremes in the workplace is available [Guidelines for the management of work in extremes of temperature](#)

7.0

Managing heat at work

Indoor workplaces

There are many ways to manage heat sources in indoor workplaces to maintain thermal comfort for workers.

THERMAL CONTROL	CONTROL EXAMPLES
Cool the air temperature	<ul style="list-style-type: none"> - Install air conditioning – you should deal with any high radiant heat sources first (see below) or air conditioning may not be as effective.
Promote air movement	<ul style="list-style-type: none"> - Provide personal fans for workers – this is good for dealing with localised high temperatures (but make sure they are not just blowing hot air around). - Install large diameter ceiling fans – they provide air movement over a wide area. - Install large exhaust fans, mounted in roofs and walls, these are useful for removing heated air and drawing in cooler air from outside (assuming the air outside is cooler). - Where possible, make sure windows can be opened to let fresh air in (as long as it does not interfere with building air conditioning systems).
Lower the humidity	<ul style="list-style-type: none"> - Lower humidity using dehumidifiers. - Provide good ventilation and air extraction, especially near work that produces moisture.
Reduce exposure to radiant heat sources	<ul style="list-style-type: none"> - Separate workers from heat producing plant by: <ul style="list-style-type: none"> - putting plant in separate, ventilated rooms - positioning workstations away from radiant heat sources (including direct sunlight) - shielding workers from plant using heat screens. - Insulate hot plant and pipes to reduce heat radiation. - Keep heat out of the building by: <ul style="list-style-type: none"> - installing thermal insulation in buildings – especially in metal clad buildings and warehouses. Doing this will reduce heat radiating through walls and roofs that heats the inside air temperature - using blinds, curtains and reflective coatings on windows to reduce direct sunlight - painting roofs in a light colour.
Give workers time to cool off	<ul style="list-style-type: none"> - Schedule more frequent breaks to allow cooling off time. - Provide cool drinking water. - Encourage workers to drink plenty of water.
Schedule tasks with the weather in mind	<ul style="list-style-type: none"> - Schedule high activity tasks for cooler parts of the day such as early morning (ie start early, finish early). - If possible, plan high activity tasks for cooler times of the year.
Minimise physical effort required by workers	<ul style="list-style-type: none"> - Introduce mechanical aids (lifting aids etc) that reduce the physical demands on workers in hot environments. - Rotate ‘hot’ tasks or physically demanding tasks amongst workers.
Consider clothing/ PPE requirements	<ul style="list-style-type: none"> - Make sure the lightest possible clothing is being worn. - Choose uniforms that are made from natural, breathable fibres. - Give workers a range of options with uniforms or other required clothing so they can add and remove layers as needed to remain comfortable. - Relax uniform requirements (eg untuck shirt or roll up sleeves). - Make sure wherever possible that PPE is light and breathable while still providing appropriate protection. - Encourage workers to remove PPE during rest breaks to allow sweat evaporation.
Educate workers and supervisors	<ul style="list-style-type: none"> - Make sure workers know what options are available to them to help them manage their own thermal comfort. - Train workers, managers, supervisors, and forepersons in the signs and symptoms of heat illnesses and injuries. - Make sure first aiders know how to respond to heat illnesses and injuries.

TABLE 2: Managing heat – indoor workplaces

Outdoor workplaces

Managing heat in outdoor workplaces is not as straight forward. Most controls involve reducing worker exposure to heat sources.

THERMAL CONTROL	EXAMPLES
Reduce exposure to radiant heat	<ul style="list-style-type: none"> - Where possible, provide shade from the sun while working. - Provide rest areas out of the sun. - Provide protection from solar heat and UV radiation, including: <ul style="list-style-type: none"> - sunhats - long sleeved clothing (loose fitting is best) - sun screen. - Shield workers from machinery that produces excessive heat.
Give workers time to cool off	<ul style="list-style-type: none"> - In hot weather schedule more frequent breaks to allow cooling off time. Break areas should be shaded and out of the heat. - Provide cool drinking water. - Encourage workers to drink plenty of water.
Schedule tasks with the weather in mind	<ul style="list-style-type: none"> - Schedule high activity tasks for cooler parts of the day such as early morning (ie start early, finish early). - If possible, plan high activity tasks for cooler times of the year.
Minimise physical effort required by workers	<ul style="list-style-type: none"> - Introduce mechanical aids (lifting aids etc) that reduce the physical demands on workers in hot environments. - Rotate 'hot' tasks or physically demanding tasks amongst workers.
Consider clothing/ PPE requirements	<ul style="list-style-type: none"> - Make sure the lightest possible clothing is being worn. - Choose uniforms that are made from natural, breathable fibres. - Give workers a range of options with uniforms or other required clothing so they can add and remove layers as needed to remain comfortable. - Make sure wherever possible that PPE is light and breathable while still providing appropriate protection. - Encourage workers to remove PPE during rest breaks to allow sweat evaporation.
Educate workers and supervisors	<ul style="list-style-type: none"> - Make sure workers know what options are available to them to help them manage their own thermal comfort. - Train workers, managers, supervisors, and forepersons in the signs and symptoms of heat illnesses and injuries. - Make sure first aiders know how to respond to signs of heat illnesses and injuries.

TABLE 3: Managing heat – outdoor workplaces

8.0

Managing cold at work

Indoor workplaces

There are many ways to manage the cold in indoor workplaces to maintain thermal comfort for workers.

THERMAL CONTROL	EXAMPLES
Raise the air temperature	<ul style="list-style-type: none">- Install heating systems, either localised or general heating.- Make sure heating systems do not give off dangerous fumes into the workplace (such as unflued LPG heaters).- Install thermal insulation in buildings, this will reduce heat loss in winter.
Warm workers using radiant heat	<ul style="list-style-type: none">- Provide radiant or infrared heating. This is an economical method for warming workers in large work areas.
Reduce excess air movement and draughts	<ul style="list-style-type: none">- Eliminate cold draughts.- Reduce any excess air movement, but make sure there is still adequate ventilation.
Reduce time workers are exposed to cold environments	<ul style="list-style-type: none">- Schedule additional rest times to allow warming up time.- Provide heated rest/break areas.- Rotate 'cold' tasks amongst workers.- Provide warm fluids for drinking such as hot drinks or soup.- Locate work activities in warmer parts of the building. For example, create a separate heated area for sedentary administrative tasks in an unheated warehouse.
Consider clothing/ PPE requirements	<ul style="list-style-type: none">- Make sure workers are suitably clothed for the conditions.- In extreme cold conditions (such as cool stores) make sure workers have extra protection such as gloves and hats.- If the task requires fine manual work and gloves cannot be worn, the environment should be warmed. This could be done locally using personal heating.- Provide insulated floor coverings and special footwear if workers have to stand for long periods on cold floors.- Provide clothing that can be layered so workers can add or remove layers to stay comfortable between low and high activity tasks.
Educate workers and supervisors	<ul style="list-style-type: none">- Make sure workers know what options are available to them to help them manage their own thermal comfort.- Train workers, managers, supervisors, and forepersons in the signs and symptoms of cold illnesses and injuries.- Make sure first aiders know how to respond to signs of cold illnesses and injuries.

TABLE 4: Managing cold - indoor workplaces

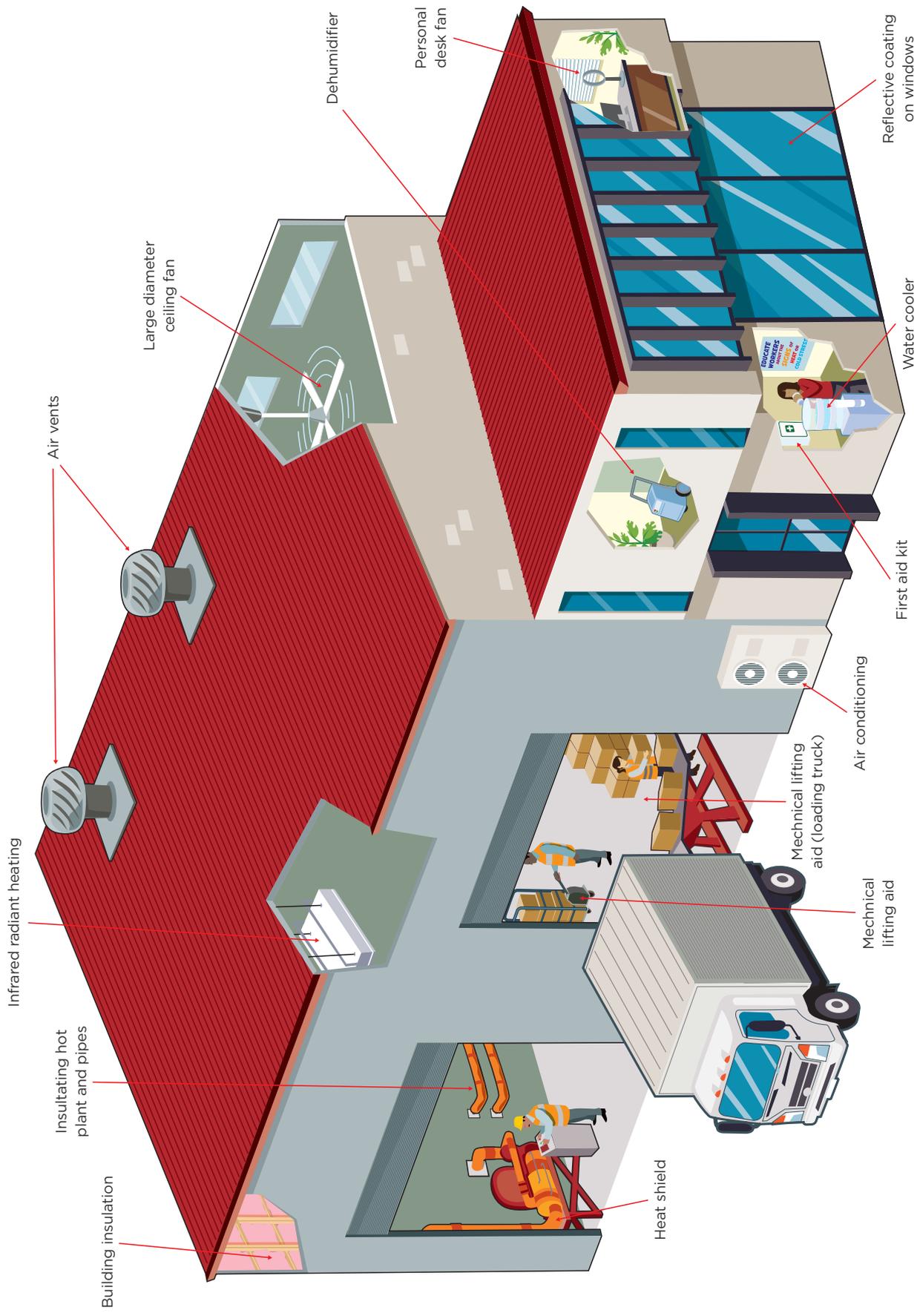
Outdoor workplaces

Managing cold in outdoor workplaces is not as straight forward. Most controls involve protecting workers from the cold rather than attempting to warm the work environment.

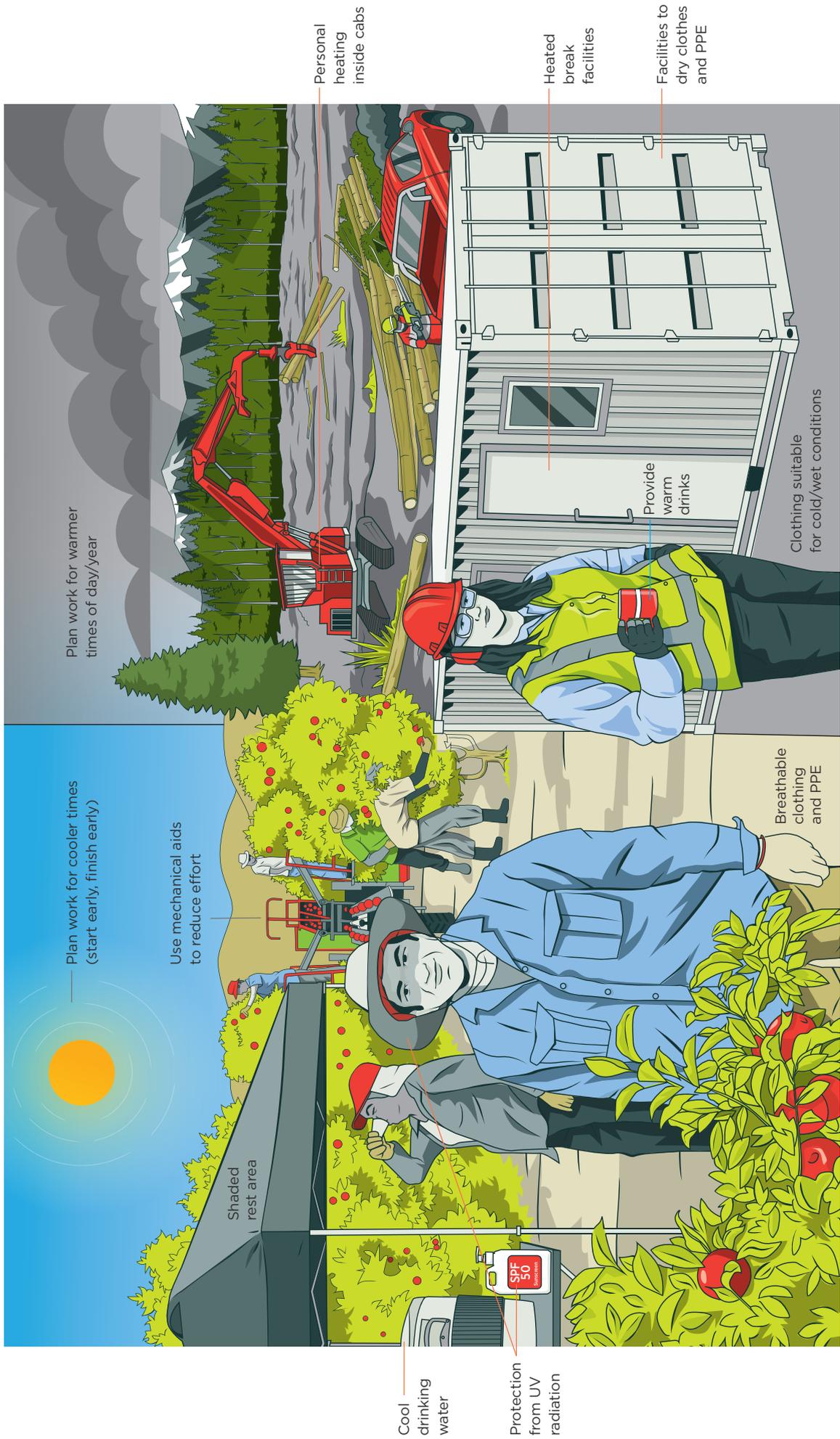
THERMAL CONTROL	EXAMPLES
Reduce exposure to cold	<ul style="list-style-type: none"> - Provide heated rest/break areas. - Schedule additional rest breaks to allow warming up time. - Rotate 'cold' tasks amongst workers. - Provide personal heating inside the cabs of plant and machinery.
Allow workers opportunities to warm up	<ul style="list-style-type: none"> - Provide mobile facilities that are heated so workers can warm up during break times. - Provide warm fluids for drinking such as hot drinks or soup.
Schedule tasks with the weather in mind	<ul style="list-style-type: none"> - Schedule outdoor work for warmer times of the day. - If possible, plan outdoor work for warmer times of the year.
Consider clothing/ PPE requirements	<ul style="list-style-type: none"> - Make sure workers have personal protective clothing suitable for the outdoor conditions. For example, water proof clothing for wet environments and thermal lined clothing for cold environments. - Provide clothing that can be layered so workers can add or remove layers to stay comfortable between low and high activity tasks.
Educate workers and supervisors	<ul style="list-style-type: none"> - Make sure workers know what options are available to them to help them manage their own thermal comfort. - Train workers, managers, supervisors, and forepersons in the signs and symptoms of cold illnesses and injuries. - Make sure first aiders know how to respond to signs of cold illnesses and injuries.

TABLE 5: Managing cold – outdoor workplaces

Examples of managing thermal comfort in an indoor workplace.



Examples of managing thermal comfort in outdoor workplaces.



Plan work for cooler times (start early, finish early)

Use mechanical aids to reduce effort

Shaded rest area

Cool drinking water

Protection from UV radiation

Plan work for warmer times of day/year

Personal heating inside cabs

Heated break facilities

Facilities to dry clothes and PPE

Provide warm drinks

Breathable clothing and PPE

Clothing suitable for cold/wet conditions

9.0

PPE and thermal comfort

PPE is the 'last line of defence' after all other reasonably practicable actions have been taken to eliminate and minimise risks to workers from hazards in the workplace.

Some PPE can reduce the body's ability to evaporate sweat. If it is bulky or heavy, it may contribute to an increase in heat being generated inside the body.

Wearing PPE in warm/hot environments with high work activity rates may cause thermal discomfort and increase the risk of heat-related illness or injury.

Avoid making workers wear all PPE all the time if it is only needed for specific tasks or when certain hazards are present. Excessive PPE requirements can create unnecessary thermal discomfort.

In situations where PPE is causing thermal discomfort (but not creating a risk of heat-related illness or injury) you could:

- allow workers to work more slowly
- rotate workers out of hot environments more frequently
- allow longer recovery times before re-starting high activity tasks
- provide facilities for PPE to be dried and cooled during breaks so that it can be worn again without any retained heat or moisture
- consider scheduling work to cooler times of the day or year
- regularly revisit your work processes to see if they could be automated or alternative systems of work/controls introduced
- regularly re-evaluate your PPE options. More modern PPE may be lighter and provide improved levels of protection and comfort.

See WorkSafe guide [*Personal protective equipment - a guide for businesses*](#) for more information on PPE.

10.0

More information

Worksafe guidance

Special guide

[Introduction to the Health and Safety at Work Act](#)

Quick reference guide

[Health and Safety at Work](#)

Quick guide

[Identifying, assessing and managing work risks](#)

Fact sheets

[Reasonably practicable](#)

[Worker engagement](#)

[Personal protective equipment – a guide for businesses](#)

Other guidance

[Guidelines for the management of work in extremes of temperature](#)

Legislation

Duty of care

[Section 36 of the Health and Safety at Work Act 2015](#)

Duty to engage with workers

[Section 58 of the Health and Safety at Work Act 2015](#)

Reasonably practicable

[Section 22 of the Health and Safety at Work Act 2015](#)

Links

HAZANZ register of workplace health and safety professionals

www.hasanz.org.nz

New Zealand Occupational Hygiene Society

www.nzohs.org.nz

Disclaimer

This publication provides general guidance. It is not possible for WorkSafe to address every situation that could occur in every workplace. This means that you will need to think about this guidance and how to apply it to your particular circumstances.

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