Te Korowai Whakaruruhau

Health, Safety and Wellbeing Service

August 2025

Kia ora Koutou,

Welcome to the August Edition of the Te Korowai Whakaruruhau Newsletter! 🌿

As we step into the heart of winter, this month's newsletter brings a mix of practical updates, inspiring ideas, and a few unexpected insights to keep our health, safety, and wellbeing front of mind. Whether you're looking to stay informed, inspired, or simply curious, there's something here for everyone.

In this issue we cover:

- Disposing of Legacy Radiation Sources
- Health and Safety Rep Conference 2025
- HSW Community of Interest (CoI)
- Advice for campus attendance when unwell and displaying symptoms
- Dates in August
- Why walking backwards can be good for your health and brain
- Find out what makes a workplace safety idea effective in 2025
- Courses
- Whakatauki

You can find previous editions of this newsletter on our website.

Angus Clark
Associate Director – HSW

Disposing of Legacy Radiation Sources

In the pursuit of scientific progress and industrial innovation, radioactive materials have played a crucial role. But as technology evolves, many of these materials—known as *legacy sources*—have become outdated or are no longer in use.

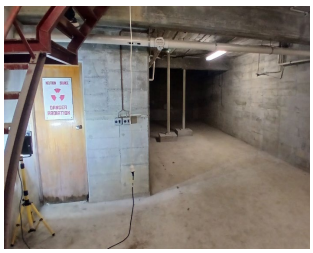
For example, the basement of one of our Science Buildings houses a disused radiation facility, and an area which was once used as a deep geological repository by the Faculty of Science.

Some other examples of legacy sources are:

- **Radium sources:** Used in early medical treatments and industrial radiography.
- **Caesium-137 sources:** Employed in soil density gauges and medical equipment. A caesium blood irradiator is a medical device that uses radioactive cesium-137 to irradiate blood.
- **Cobalt-60 sources:** Applied in cancer treatment and sterilization processes. Cobalt-60 teletherapy sources are used in radiation therapy to treat cancer by directing a beam of gamma rays.

Once vital in medical treatment and industrial research settings legacy sources pose significant safety and regulatory challenges due to their long half-lives. They need to be stored securely until proper disposal in order to prevent environmental contamination and to ensure public safety.

In the past, we have employed experts from Environmental Science and Research (ESR), Christchurch, to dispose of legacy sources.



For example, a few years ago, we found two Radium sources and some Uranyl nitrate unsealed sources. Radium-226 has a long half-life of approximately 1600 years, and the sources were therefore still "hot".

The sub-basement, which used to house an old linear accelerator on the right and now a radiation storage room on the left.

In a recent case study, we follow Timothy Christopher (Technologist), Brad Wackrow (Technician), and Pooja Yadav (Radiation Safety Advisor) in their diligent work to dispose of Radium sources in three labelled containers: one labelled Sulphur-35 and two as Radium-226. To verify the accuracy of legacy source records, multiple radiation surveys of the radiation storage facility were conducted. According to theoretical calculations, the Sulphur-35 should have been cold due to its short half-life of 87.37 days.

We prepared for the Sulphur-35 disposal, but safety surveys indicated it was mislabelled and was actually Radium-226.

This was a clear reminder of how **proper labelling is essential to minimising risks when handling hazardous substances.**

Legacy sources in the old subbasement. Right: Labelling showing both radioactive Radium-226 and sulphur-35.

The radiation level of each legacy source was recorded, suggesting that both sources are Radium-226. We were unable to determine the Radium spectrum or identify exact isotopes. A wipe test of legacy sources was conducted to confirm if there were any leaks within the containers. One container was found to have contamination on the surface, necessitating external third-party involvement. Also the mislabeling of the compounds made it important to check the spectra of the sealed sources to ensure we had identified the compounds and isotopes properly.

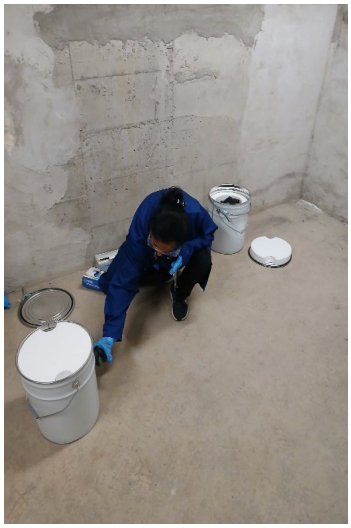
Timothy Christopher wearing appropriate PPE, including personal dosimeter to measure effective dose to the torso.

With support from Jordan at Nuclear Australia, the canisters were correctly labelled and packed into specially designed drums. During the packing process, the radioactive spectra were recorded and assigned to each labelled canister and its corresponding drum. This step ensures each radioactive source has a unique catalogue number, significantly streamlining the disposal process.

Left: Pooja Yadav measuring the radiation of the canisters before conducting the wipe test.
Right: Brad Wackrow cataloguing the samples for the radiation wipe test.

Once the canisters were fully packed, the external radiation levels were measured to ensure the safety of those dealing with the transit and disposal. The drums were then packaged, and we moved onto the next step of regulatory disposal via the Office of Radiation Safety. A third radium source at Faculty of Health and Medicine Sciences (FMHS) was also packaged for disposal at the radioactive bunker in FMHS.

Jordan from Nuclear Australia using a portable Geiger counter to confirm the radioactive source present. Right: Radiation canisters with a portable detector on top.



Radiation Safety Advisor Dr Pooja Yadav would like to thank Timothy Christopher (School of Chemical Sciences, Brad Wackrow (Auckland Cancer Research Society Centre), and Darrien Cottier (Faculty of Health and Medicine Sciences) for their expertise and dedication to the responsible disposal of legacy radiation sources.

Their rare skillsets and adroit handling of hazardous substances are invaluable in ensuring environmental safety and regulatory compliance and safe disposal of Radium legacy sources.

Pooja Yadav measuring the radiation levels outside of the drum with a packed radioactive canister and packed transit drums awaiting disposal.

Please note that work with radiation sources is highly specialised and must only be performed by fully trained and experienced staff: full precautions were taken by all involved in this case study, including appropriate radiation dosimetry.

(Dr Pooja Yadav & Timothy Christopher)

HSW Rep Conference 2025

The HSW Rep conference 2025 is being held 📅 **September 2nd, 2025**. This is a special day dedicated to celebrating and empowering our incredible HSW Reps who volunteer their time to keep our workplaces safe and supportive. Information has now been shared to nominate our Health, Safety and Wellbeing Reps to attend the conference.

HSW Rep Community of Interest Group (CoI)

The University of Auckland Rep Community of Interest Group currently has in excess of 100 members. The members and the committee represents everyone at the University and brings a level playing field of representation from across the University into the Senior Leadership HSW Committee meetings.

Request to join the HSW Rep Community of Interest Group via hsw@auckland.ac.nz

Damstra

Damstra is the University of Auckland's reporting tool. You can report an injury, incident or observation.

Effective reporting leads to a stronger safety culture. Reporting helps identify health, safety, and wellbeing trends and prevents future incidents.

Advice for campus attendance when unwell and displaying symptoms

Protecting our university community from communicable illness and diseases, such as colds, influenza (flu) and other viruses is essential. It helps us to stay safe and to ensure our staff and students can meet their learning and professional goals.

There are several ways we can protect ourselves and others, including vaccination, regular handwashing, mask wearing and staying away from campus when displaying symptoms.

You are at your ***most infectious*** and ***likely to pass on your illness when you start displaying symptoms such as fever, coughing, headache, and/or a runny nose.*** If you have any of these symptoms, consider studying or working from home instead. If you're unable to do so, you are strongly encouraged to wear a mask on-campus to prevent any infections passing onto your friends and colleagues.

When to Seek Medical Advice

Seek medical assistance if you have any of the following symptoms – even just one or two:

- Headache
- Feeling sleepy/ drowsiness
- Fever
- Stiff neck
- Light sensitivity
- Vomiting
- Joint pain

If you are enrolled with the University Health and Counselling Service, you can make phone appointments.

For information on Covid-19, read the latest Te Whatu Ora guidance.

Dates in August

Women's Health Week / Te Wiki Hauora Wāhine (11-17 August)
Cancer Society te Rā Daffodil, Daffodil Day (29 August)

Your HSW team

Should you need to contact the University of Auckland's Health, Safety and Wellbeing Team your contacts can be found here

The many benefits of walking backwards

During the 19th Century, the activity of "retro-walking" was little more than an eccentric hobby, but today research is revealing it can have real benefits for your health and brain.

On an apparent wager to win $20,000 (about £4,250 at the time), a 50-year-old cigar-shop owner called Patrick Harmon embarked on a curious challenge in the summer of 1915 – he planned to walk backwards from San Francisco to New York City.

With the aid of a friend and a small car mirror attached to his chest to help him see where he was going, Harmon made the 3,900 miles (6,300km) journey in 290 days, apparently walking every step backwards. Harmon claimed the journey made his ankles so strong that "it would take a sledgehammer blow to sprain them".

Perhaps he was onto something.

According to research, walking backwards can have surprising benefits for both your physical health and your brain, as Michael Mosley recently explored in a recent episode of the BBC podcast and Radio 4 show Just One Thing.

Retro-walking, as walking backwards is known in academic circles, has a rich history. There are reports dating back to the early 19th Century of people walking hundreds, and sometimes thousands of miles, in reverse. Many were the result of impulsive bets and others were simply attempts to claim the bragging rights to a bizarre new record.

But due to the difference in biomechanics, backwards walking can actually bring some physical benefits. It is often used in physiotherapy to relieve back pain, knee problems and arthritis. Some studies even suggest that backwards walking can positively affect cognitive abilities such as memory, reaction time and problem-solving skills.

The practice of walking backwards for health purposes is thought to have originated in ancient China, but it has received attention from researchers more recently in the US and Europe as a way of improving sports performance and to build muscle strength.

(Annabel Bourne, BBC Health Fix, July 2025)

🚶 Safety First: Choose the Right Environment

While walking backwards offers intriguing benefits for both physical health and cognitive function, it's essential to approach this practice with caution. To truly reap the rewards without risking injury, one must ensure the environment is **free of hazards**.

This means:

- **Flat, even surfaces** with no obstacles or tripping hazards
- **Well-lit areas** to maintain spatial awareness
- **Minimal foot traffic** to avoid collisions
- **Supportive footwear** to maintain balance and stability

Whether you're trying it indoors or outdoors, the key is to prioritise safety. A hazard-free space allows you to focus on the movement itself—enhancing coordination, engaging different muscle groups, and stimulating your brain—without the worry of accidental falls or injuries.

(HSW Team)

Find out what makes a workplace safety idea effective in 2025

What actually makes workplace safety ideas stick? It's not a science, but it does require thinking like a human instead of a compliance officer.

Here's what separates the memorable safety ideas from the forgettable ones:

- **Stories beat statistics**: Someone sharing their "I almost slipped on that wet floor" moment hits different than another pie chart about incident rates
- **Right time trumps right message**: A quick "stretch first" reminder popping up before a heavy lifting shift beats a 30-minute ergonomics seminar from last quarter
- **Get people involved**: When employees create the safety content instead of just sitting through it, they actually care about the outcome
- **Keep it fresh**: Same poster for six months? Nobody's looking. Weekly rotation of employee photos, funny moments, real stories? Now you've got attention
- **Use tech that doesn't create more work**: Something like Appspace can handle all the scheduling and rotating automatically, so you're not manually updating displays every week

The workplace safety ideas that actually work don't feel like safety training. They feel like something you'd actually want to pay attention to.

Here are some fun and creative workspace safety ideas that actually work:

- Team-based workplace safety activities
- Creative media and employee-generated content
- Hands-on and game-based safety learning
- Creative storytelling and campaign tie-ins

You can find out more specific exercises and information about what activities separate the memorable safety ideas for those that are not on www.appspace.com.

(Appspace.com resources)

Courses and training dates

- Fire Safety and Warden Training

The University of Auckland offers Fire Safety training to equip our employees with the skills needed to effectively prevent and respond to fires, reducing the risk of property damage, injury, and loss of life.

Fire Warden e-Learning will be available on August 26, 2025, from 10am-11:30am **for those in remote locations** unable to attend the in-person sessions. Attendees to the online course are required to have access to a webcam, which must remain on for the duration of the session, to ensure full participation. Staff from the City, Grafton and Newmarket campuses are expected to attend the classroom training sessions taking place on campus.

- Health and Safety: Role of a Leader and Manager

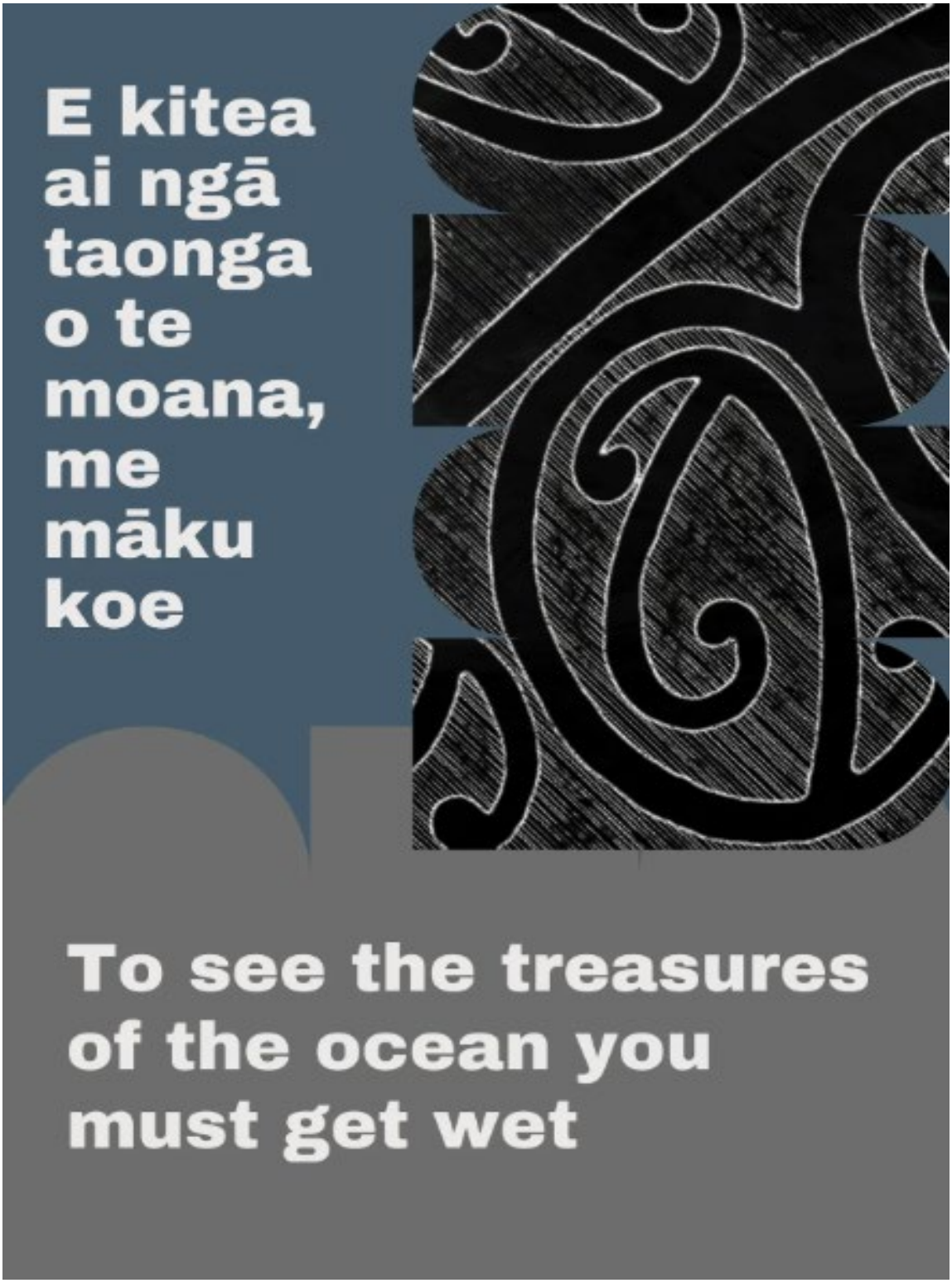
Managers are legally responsible for keeping the workplace safe for students and staff.

This workshop will outline how to develop a proactive culture of health, safety and wellbeing, and aim to assist leaders and managers in understanding their roles and responsibilities in the management of health and safety at the University.

As a leader and manager, you have a critical role in developing a safe and healthy work environment for your staff and students. This workshop will provide information on the University's new policy, expectations, and guidance on how to lead and manage health and safety within your areas.

- First Aid Refresher
- Comprehensive First Aid Course (with Online Pre-Learning)
- Health and Safety Representative Training: Stage 1
- Health and Safety Representative Training: Stage 2
- Moving and Handling Training (Manual Handling): On-demand sessions
- Chemical Safety Management in Labs
- An Introduction to Personal Safety & De-escalation: On-demand sessions
- Mental Health 101 (MH101)
- Incident Management & Investigation course
- Risk Assessment

Whakatauki



(Rangitaki)