

A SPECIAL REPORT



BUSINESS RISK MANAGEMENT SERVICES

MAJOR FIRE REPORT

Chemical Plant Fire at Derrimut Victoria

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LESSONS LEARNED

- Sprinklers failed to control fire. Reason not known
- Internal concrete slab fire wall appeared partly to contain fire.
- In excess of 3 million litres of water and 40,000 litres of foam has been used to suppress this fire.
- Previous fire in October in 2023 where workers was killed
- Reportedly Sprinklers helped to control fire in previous fire
- A Monash University chemical engineer, Dr Sally El Meragawi, says firefighting foams containing [polyfluoroalkyl substances \(PFAS\)](#) – or so-called “forever chemicals” – could enter into the waterways and have serious long-term environmental and health impacts
- On Thursday, [The Age revealed](#) a bitter dispute had erupted in the midst of Wednesday’s fire at the chemical manufacturing plant, operated by ACB Group, after Melbourne Water initially delayed flushing a large toxic water slurry, created by the blaze and the efforts to douse it with chemical-laced firefighting foam, into drains and Cherry Creek.
- 23rd July 2024. Firefighters battling Melbourne's largest industrial blaze on record have said they had to use broken, dangerous and outdated equipment to fight the flames.
- The union's Victorian secretary Peter Marshall said the equipment issues could be the difference in being able to contain major fires early before they spread or intensify.
- A spokeswoman said a decision was made early on in the response to not place firefighters too close to the blaze.
- This involved using uncrewed firefighting equipment to reduce exposure to firefighters.

PRE-FIRE BACKGROUND INFORMATION



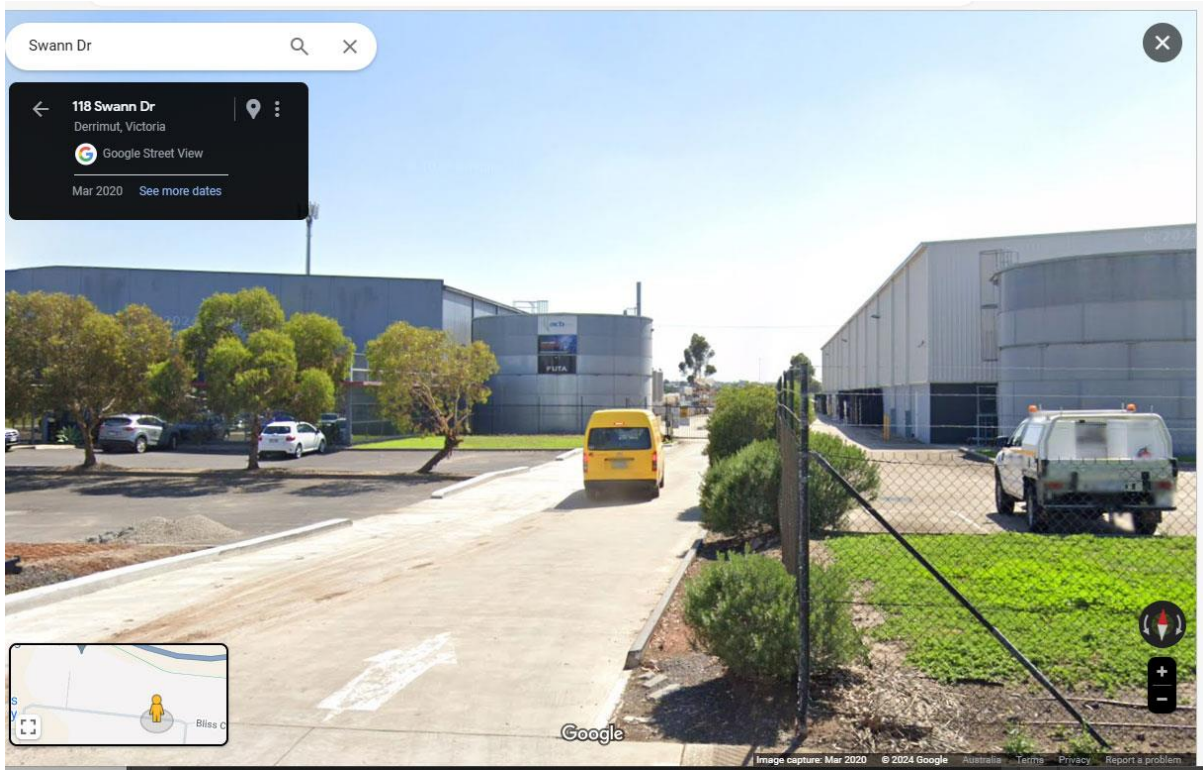
Property occupied by

[Home - ACB Group \(acblend.com.au\)](http://acblend.com.au)

Extract from ACB web site

"Since our establishment in 2000, ACB Group has grown to become one of the largest chemical contract manufacturers, now being Victoria's leading specialists in Class 3 dangerous goods contract blending, specialist repacking, filling, and more. Our growth and success come from optimizing and tailoring our operations to suit our client and customer requirements – however specific or broad they may be. We enable our clients to subcontract a critical operation element to industry specialists. "

GOOGLE MAP IMAGES OF LOCATION PRIOR TO FIRE



Property on left with what is reported as sprinkler Tank behind yellow van



Hydrant booster at front of property

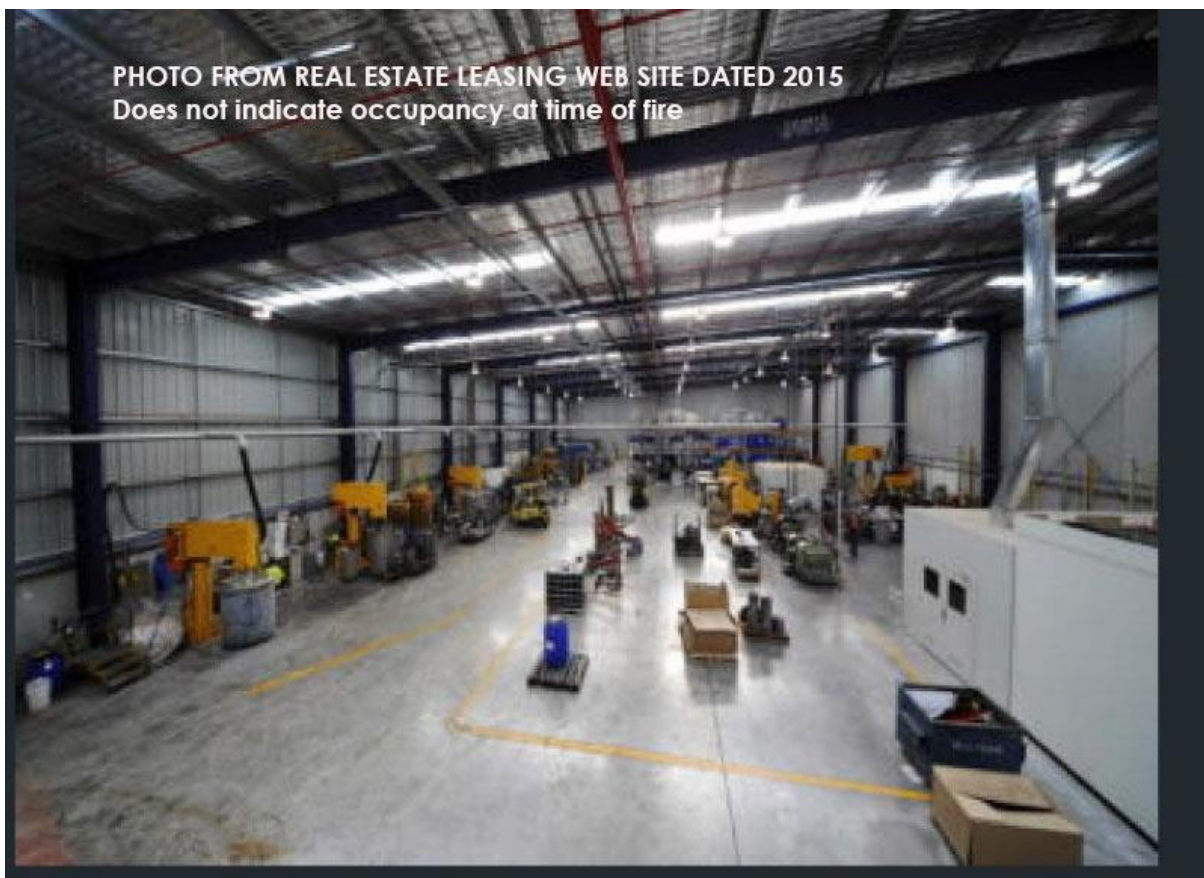
REAL ESTATE SITE LEASING DESCRIPTION

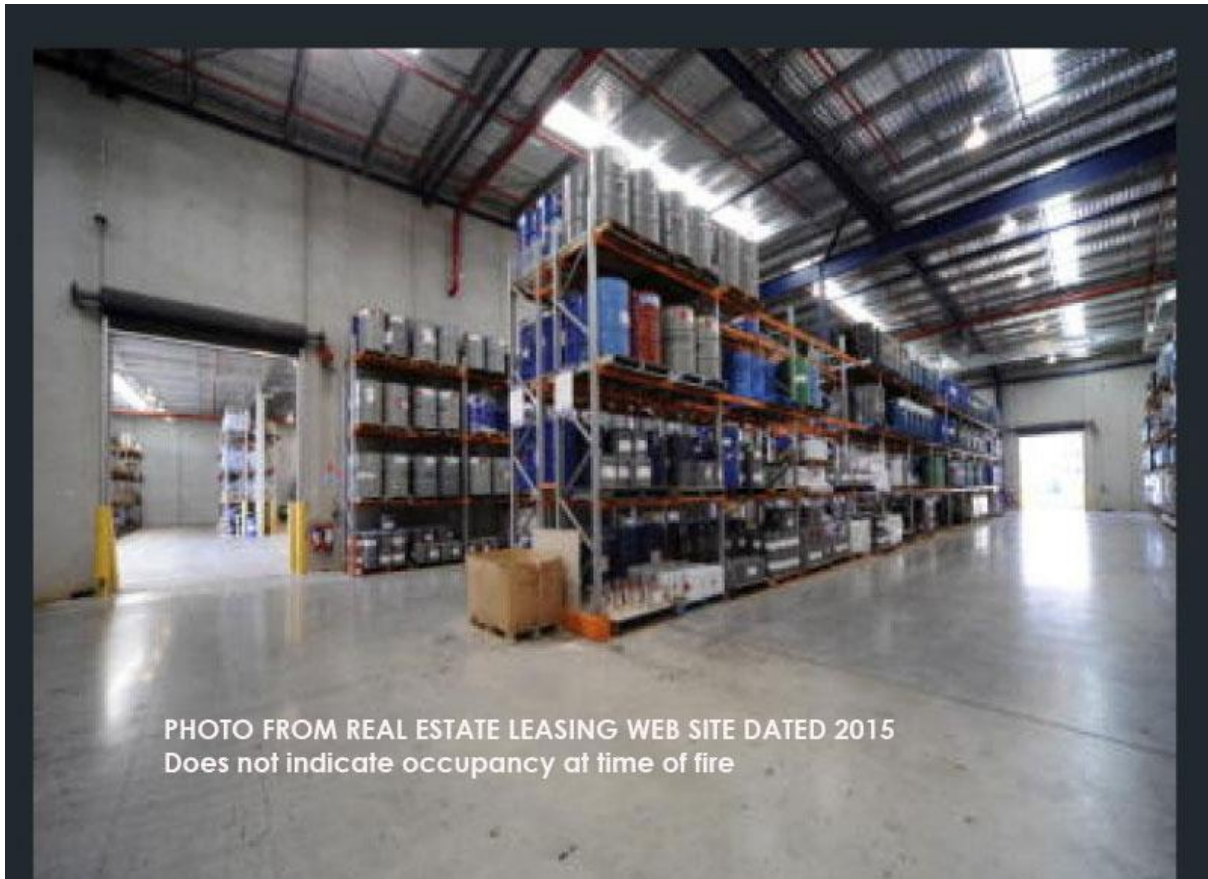
DANGEROUS GOODS / WAREHOUSE FACILITY dated 2015

This facility is 16 radial kilometres west of Melbourne CBD (approx) , in the well known Gilbertson Estate, Serviced by linkages including Fitzgerald Road, Boundary Road and Western Highway.

PROPERTY FEATURES;

- * Built in 2006.
- * Enclosed canopy area: 1,822 sqm.
- * State of the art laboratory.
- * Dangerous goods storage and production area.
- * Substantial power supply.
- * Fully sprinklered
- * Drive around B-double access





Source

[Leased Industrial & Warehouse Property at Dangerous Goods / Warehouse facility, 118 Swann Drive, Derrimut, VIC 3030 - realcommercial](#)

Note Photos dated 2015 could not establish who was occupying the premises at time photos taken.

Note Fire wall with shutter and sprinkler piping can be seen

FIRE & RESCUE VICTORIA REPORT

Update 5.22pm 11 July

Fire Rescue Victoria (FRV) remains on scene and will continue to monitor the incident for spot fires.

There are several hotspots still active which cannot be accessed due to the structural collapse and FRV will wait for demolition works to commence in order to completely extinguish the blaze.

Approximately 60 firefighters and 12 appliances remain at the scene.

Multiple trucks have been cleaned and removed from the site and more appliances and equipment will be cleaned over the next few days.

FRV will maintain a presence alongside partner agencies until the incident is handed over which is expected to take place in a couple of days.

A community advice warning for surrounding suburbs to stay informed, issued on Thursday morning, remains active.

Update 9.35am 11 July

Fire Rescue Victoria Deputy Commissioner Community Safety Joshua Fischer said that due to successful firefighting efforts, nearby businesses would be allowed to return on a case-by-case basis.

DC Fischer said: "Significant progress has been made overnight by Fire Rescue Victoria with support from our colleagues in the Aviation Rescue Fire Fighting Service who provided additional aviation firefighting tenders to deliver bulk water and foam on the fire.

"In excess of 3 million litres of water and 40,000 litres of foam has been used to suppress this fire.



“We have got 3 appliances currently undertaking firefighting operations to continue to suppress the fire and we still have a further 11 appliances on scene supporting and in time going through a decontamination process.”

DC Fischer said there were a number of chemicals and dangerous goods on site that were consumed in the fire but the exact quantity was currently not known.

“We are now currently managing runoff of contaminated water as a result of the firefighting effort and contaminants in the building alongside the EPA,” he said.

“It is a dynamic situation and we are undertaking atmospheric monitoring so we can allow businesses in the area to return to premises on a case by case basis.



“There are still road closures in place and a current ‘Watch and Act’ in place for the same area issued yesterday.”

DC Fischer said the exact cause of the fire is currently under investigation.

“Our FRV fire investigators, together with Victoria Police and WorkSafe are undertaking that investigation and it is ongoing,” he said.

“It is going to take some time to ascertain the exact cause and we also need to gain access to the scene which is an active fire area with lots of contaminants and structural integrity issues of the remaining building.

“This is challenging and dynamic environment. For FRV this is our first seventh alarm, so this is a significant incident.”

DC Fischer paid tribute to the multi-agency response, with support provided by the Aviation Rescue Fire Fighting Service, CFA, VICSES, Victoria Police and Ambulance Victoria.

“In Victoria, in the emergency management sector we work as one, in a large co-ordinated effort. There is a long list of supporting agencies such as the EPA, local government and Melbourne Water,” he said.

“I really want to thank all the first responders, particularly our firefighters, working in the most dangerous conditions as you saw from the footage yesterday with explosions and debris falling onto the fire impact area.”

DC Fischer said in addition to continuing to suppress the fire and managing the atmosphere and surrounding environment, a key focus was on firefighter well-being.

There have been no reported major injuries.

Update 7.30PM

FRV advises that businesses in Swann Circuit and Bliss Court must remain closed tonight.

FRV does not want people exposed to the wastewater and toxic smoke, and they cannot return until it is safe to do so.

FRV will provide further advice to the community after 6AM tomorrow.

Update from EPA at 6.35PM

Avoid contact with water at Cherry Creek, Anderson's Swamp and Kayes Drain, Derrimut

Firewater has entered Cherry Creek, Anderson's Swamp and Kayes Drain due to the industrial fire.

Avoid contact with the water (including pets) downstream of the fire location until further notice.

Odours may be observed in the area. Avoid areas where odours occur.

The EPA has not observed any ash impacts from the Derrimut industrial fire.

But, if you do observe any ash residue on your property, wash down impacted surfaces and any fruit and vegetables before eating them.

Update 5pm:

Fire Rescue Victoria Deputy Commissioner North & West Michelle Cowling AFSM said crews would likely remain on site over coming days to fully extinguish the fire.

Major arterial roads are starting to reopen.

"Our crews have been working around the clock since 11.20am this morning and have brought this significant fire under control," Deputy Commissioner Cowling said.

"There have been no reports of any injuries to staff or to any of the emergency services on site."

"The cause of this fire will be fully investigated by WorkSafe, FRV, Victoria Police and other agencies."

"The factory contained a range of chemicals, including kerosene, fuel, methylated spirits and ethanol."

"We cannot leave any smouldering embers."

"It has been a huge fire and Fire Rescue Victoria firefighters have done an amazing job, relying on their training and professionalism to bring this fire under control in such a short amount of time."

Update 3.32pm.

The fire has been deemed Under Control.

Update 3pm:

More than 180 firefighters are responding to the fire in Derrimut.

FRV's specialist hazmat and scientific advisors are on site, as well as the Environment Protection Authority.

Update: 1.24PM 10 July 2024

FRV is attending a large factory fire at Swann Drive, Derrimut, with hazardous material and unknown toxins burning.

FRV has requested an evacuation along Swann Drive to Bliss Court, which Victoria Police is managing.

FRV has issued a 'Watch and Act' message for Albion, Braybrook, Brooklyn, Derrimut, Laverton North, Sunshine, Sunshine West, Tottenham, Truganina.

A large plume of smoke is blowing over the eastern and western suburbs of Melbourne.

Anyone located in the area affected by smoke should take shelter indoors immediately.

11.30am:

FRV is responding to a significant factory fire in Derrimut.

The fire has involved a large chemical explosion and a fire.

Crews arrived at the Swann Drive scene at 11.20am.

Specialist appliances are on scene, including aerial appliances.

A community advice warning has been issued for Albion, Braybrook, Brooklyn, Derrimut, Laverton North, Sunshine, Sunshine West, Tottenham, Truganina.

Additional appliances are being deployed to the scene, as crews work to attack the fire.

Source

[FRV responding to significant factory fire in Derrimut | Fire Rescue Victoria](#)

Experts worry about long-term damage after enormous chemical fire at Derrimut

One resident described it as something out of Die Hard.

Drum barrels shot into the air from the [enormous chemical fire](#) at Derrimut in Melbourne's west on Wednesday.

For the first time since its inception in 2020, Fire Rescue [Victoria](#) battled a blaze that reached the seventh-alarm level.

As the toxic black smoke billowed over Melbourne's west, residents were reminded of a fatal tragedy at the same factory less than nine months earlier, when a 44-year-old worker, Reece Martin, died and two others were injured in a fire at the ACB Group factory in Derrimut.

More than 48 hours after it began on Wednesday, 20 firefighters remained at the site as the fire continued to smoulder on Friday afternoon.

However, as Victoria's work safety and environmental regulators piece together the cause of the fire, community groups and experts have raised concerns about the longer-term impacts.



[View image in fullscreen](#)

A fireball rises into the air at Derrimut on Wednesday morning. Photograph: ABC

The Environment Protection Authority has warned the recovery of nearby waterways, contaminated from both the firefighting efforts and the chemicals at the site, could take months.

The large explosion happened at a factory that houses multiple businesses, including chemical blenders and fuel distributors, with drums containing kerosene, methylated spirits, methanol and other substances stored at the site.

Environmental and health impacts

There were no injuries from Wednesday's fire and it was declared under control within four hours.

However, the EPA's west metropolitan manager, Steve Lansdell, on Friday reiterated warnings for residents and their pets to [stay away from affected waterways](#) – including Laverton Creek and Cherry Creek.

Fire Rescue Victoria's deputy commissioner for community safety, Josh Fischer, said some firefighters who fought the blaze had undergone observation and testing at hospital but had since been discharged.

"There's a number of things that can occur as people are exposed to chemicals," he said. "We'll be monitoring for those ... obviously, headaches. People might have elevated heart rates, particularly with these types of activity, strenuous activity, long duration, wearing breathing apparatus, hot environments, stressful conditions.

"This is a really dangerous environment for our people to be in."



An aerial view of the factory fire after Wednesday's explosion. Photograph: EPA Victoria

Lansdell said fish deaths or impacts on birdlife were yet to be recorded.

"Often it can take 24 or 48 hours of this fire-water going down that [it] can start to have those impacts," he told reporters.

"The recovery of these waterways themselves can take some weeks and months ... there's still a lot of work out there to clean it up."

The EPA, which is conducting monitoring alongside Melbourne Water, says it will also test waterways, install sandbags and deploy trucks to suck out affected stormwater.

A Monash University chemical engineer, Dr Sally El Meragawi, says firefighting foams containing [polyfluoroalkyl substances \(PFAS\)](#) – or so-called "forever chemicals" – could enter into the waterways and have serious long-term environmental and health impacts.



[‘No stone will be left unturned’: authorities vow ‘big investigations’ as Derrimut chemical factory fire smoulders](#)

“It really depends on how much can be cleaned up at the site and how much we’ll see entering into our actual water sources,” she says.

“Some chemicals are within the ability of general water wastewater treatment plants ... but some are not.”

She points to the [2018 Footscray-Tottenham factory fire](#), where toxic levels of PFAS chemicals persisted in nearby recreational waters weeks after the incident. Meragawi says two weeks after the fire, the levels of PFAS chemicals were found to be 16 times higher than safe recreational water quality levels downstream from the fire site.

“The problem with [PFAS](#) especially is that when it’s in the environment, or in our food chain or bodies, it tends to stay there for a very long time,” she says.

“They have been linked to health issues such as various cancers and thyroid diseases.”

‘This isn’t going to be a quick investigation’

Fischer said there was no indication the cause of the fire was suspicious and the agency would access the site once safe to do so.

“This is going to take some time. This isn’t going to be a quick investigation,” he said.

Landsell said after the October fire the agency issued regulatory notices to the factory focused on stormwater management and containment, and the types of waste stored on site. He said

those notices had been complied with, but on Thursday warned “no stone will be left unturned” during the investigations.

He said further investigations would probe the types of contaminants at the site.

Guardian Australia understands WorkSafe’s investigation into last year’s fire at the same site is ongoing. It is understood that since the October fire, seven compliance notices have been issued to the factory

[Experts worry about long-term damage after enormous chemical fire at Derrimut | Melbourne | The Guardian](#)

UPDATE 23rd July 2024

Firefighters battling Melbourne's largest industrial blaze on record have said they had to use broken, dangerous and outdated equipment to fight the flames.

The United Firefighters Union said on Monday equipment needed by firefighters during the factory fire was unavailable due to being moved to parts of the city to replace other machinery that was out of service.

The inferno was sparked by a mammoth explosion at a Derrimut factory, in Melbourne's west on July 10, shooting chemical drums into the air.



Victorian firefighters say they had to use outdated equipment to fight the Derrimut blaze. (James

No-one was injured and it was declared under control hours later after more than 180 firefighters fought the biggest industrial fire in years.

One 20-year-old pumper truck failed to produce foam twice during the response and firefighters were forced to use equipment that was slower to set up.

The union said this forced firefighters closer to bulk stores of flammable chemicals and the fire grew rapidly during the time it took to establish these positions.

The union's Victorian secretary Peter Marshall said the equipment issues could be the difference in being able to contain major fires early before they spread or intensify.

"You cannot put firefighters into a situation where they haven't got the tools to do the job," he said.

"We need to have a rolling replacement program, the government needs to intervene in this.

"Invest in the fire trucks before one of our members gets injured or worse."

Nearly a quarter of Fire Rescue Victoria's fleet were involved in fighting the blaze with one-in-two of the vehicles at the scene past their use-by date.

A Fire Rescue Victoria spokeswoman said more than three million litres of water and 40,000 litres of foam were needed to stop the blaze.

"FRV deployed employees with mechanical skills and experience to the scene to ensure appliances were fuelled and remained in operational condition," she said.

However, the spokeswoman said a decision was made early on in the response to not place firefighters too close to the blaze.

This involved using uncrewed firefighting equipment to reduce exposure to firefighters.

[Fire equipment 'failure' during giant factory blaze | The North West Star | Mt Isa, QLD](#)

Prepared by Bob Anderson 23rd July 2024

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