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Hazardous chemicals and health monitoring

Who the law puts in charge, what changes on 1 December, and why a protocol nobody completes is not a control.

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What we'll cover

01 The duty, before the clinic

WA's two regulatory lenses and what triggers monitoring

7 min

02 Two duty holders, one system

What the PCBU owes the RMP, and what the RMP owes back

9 min

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What moves on 1 December, and who it pulls into monitoring

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Choosing a test that can actually detect something

8 min

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Why 13 per cent and 96 per cent came from the same regulation

7 min

01

The duty, before the clinic

Health monitoring is a legal obligation with a defined trigger, a defined decision-maker and a defined paper trail.
Everything clinical sits downstream of that.



Two regulatory lenses in Western Australia

The workplace decides the instrument. Mines carry the hazardous chemical duties and a broader one on top.

Lens	Core Trigger	Key Provisions	What it Changes in Practice
General workplaces	Ongoing hazardous chemical work with the exposure risk described in r. 368	WHS (General) Regulations 2022, rr. 368–378 and Schedule 14	Link the chemical, the task and the monitoring technique
Mining and exploration	The same hazardous chemical duties, plus risk of an adverse health effect from a mining hazard where valid techniques exist	WHS (Mines) Regulations 2022, rr. 368–378 and Part 10.3 Division 2, rr. 675F–675P	Mine operator governance, approved report form, mine-specific reporting and record duties

Regulation 675F is not limited to hazardous chemicals or to Schedule 14. It reaches any hazard associated with mining operations where an adverse health effect is possible and a valid detection technique exists.

Regulation 368: two ways into a monitoring duty

Schedule 14 is a starting list, not the outer boundary of the obligation.

PATH 1

Schedule 14 chemical

The worker is carrying out ongoing work using, handling, generating or storing a listed hazardous chemical, and there is a significant risk to health from exposure.

PATH 2

Any other hazardous chemical

The risk assessment identifies a risk to the worker's health, and valid techniques exist to detect the effect or measure the biological exposure.

Lead and asbestos sit under their own separate regimes. And the legal decision depends on exposure context — a provider cannot infer that from a job title.

Schedule 14 lists 17 chemicals with a standing monitoring duty

Table 14.1 is unaffected by the WEL date — but it is the group most exposed if limits tighten around it.

Acrylonitrile	Arsenic (inorganic)	Asbestos
Benzene	Cadmium	Chromium (inorganic)
Creosote	Isocyanates	Lead (inorganic)
Mercury (inorganic)	MOCA	Organophosphate pesticides
Pentachlorophenol	Polycyclic aromatic hydrocarbons	Silica (crystalline)
Thallium	Vinyl chloride	

The general duty is a sequence, not a single obligation

Work Health and Safety (General) Regulations 2022, Part 7.1

R. 368

Trigger

Schedule 14 exposure risk, or another hazardous chemical where valid monitoring exists.

R. 369

Inform

Tell prospective and current workers, before the work begins.

RR. 370–373

Provide

The listed technique unless an experienced RMP justifies better. An experienced RMP. The exposure information. All costs.

RR. 374–377

Report

Obtain it, give it to the worker and to other PCBU's. The RMP notifies the regulator where results are consistent with exposure.

R. 378

Retain and act

Confidential record for at least 30 years, and implement what the report recommends.

None of this substitutes for eliminating the exposure or minimising it so far as is reasonably practicable.

At mines, a second division sits on top

675F Health monitoring of workers

675H Duty to ensure health monitoring is carried out or supervised by registered medical practitioner with experience

675J Duty to provide registered medical practitioner with information

675L Person conducting business or undertaking to obtain health monitoring report

675N Duty to give health monitoring report to worker

675P Health monitoring reports kept as records

675G Duty to inform of health monitoring

675I Duty to pay costs of health monitoring

675K Health monitoring report

675M Person conducting business or undertaking to give health monitoring report to mine operator

675O Duty to give health monitoring report to regulator

The reporting trigger differs. Under r. 675O the RMP gives the regulator every mining health monitoring report. Under hazardous chemical r. 376 the trigger is narrower: results consistent with exposure.

02

Two duty holders, one system

The PCBU owns the risk and the record. The RMP owns the clinical judgement. Most programmes fail in the space between them.



What the PCBU owes

Person conducting a business or undertaking — or, at a mine, the mine operator

BEFORE ANYTHING CLINICAL

Decide and consult

Determine from the risk assessment who requires monitoring, and consult workers on the requirement and on the RMP chosen.

R. 369

Inform before exposure begins

Tell prospective and current workers that monitoring will be provided, before the work starts.

R. 371

Engage an experienced RMP

A registered medical practitioner with experience in health monitoring. A company GP with no occupational training does not meet the bar.

R. 373

Supply the exposure picture

Tasks, chemicals and by-products, SDSs, routes, duration, SEG and air monitoring data, control status, incidents and prior results.

R. 372

Pay for all of it

Consultation, tests, travel and the worker's time. Cost is not a reason for a cheaper technique.

RR. 374–378

Obtain, distribute, act and retain

Get the report, give it to the worker and to other PCBUs whose workers were monitored, implement the recommendations, and keep the record for at least 30 years — 40 for asbestos.

What the RMP owes

Registered medical practitioner with experience in health monitoring

PROTOCOL

Design to the exposure, not the job title

Route, critical effect, toxicokinetics, and a technique capable of detecting the relevant early change.

R. 370

Justify any departure from the listed technique

For a Schedule 14 chemical the listed method applies unless the RMP recommends one that is equal or superior.

R. 371

Carry out or supervise the monitoring

Clinical supervision of the programme, not a signature on someone else's paperwork.

CLINICAL JUDGEMENT

Interpret, do not merely report

The individual result against a valid personal baseline, and against the similar exposure group over time.

RR. 374 AND 376

Report and notify

Give the PCBU the report. Give the regulator a copy where results are consistent with exposure — a penalty of \$7,000 for an individual, \$35,000 for a body corporate applies for failing to.

REMOVAL

Escalate a medical removal promptly

WorkSafe on 1300 307 877 or safety@lgirs.wa.gov.au, and examine the worker before recommending a return to hazardous chemical work.

The hand-off both ways is where programmes break

Neither duty holder can discharge the obligation alone.

PCBU TO RMP

- The chemical register and current SDSs
- The task as performed, including by-products, not the job title
- SEG definitions and air monitoring results
- Control status and the RPE fit-testing programme
- Roster, shift pattern and exposure duration
- Incidents, spills and recent process or product changes
- Previous valid results and baselines

RMP TO PCBU

- Whether the worker can continue the exposure work
- Any remedial action the PCBU must take
- Control recommendations arising from the findings
- Whether re-testing, referral or removal applies
- Group-level trends across the exposure group
- The report in the form the regulations require
- Nothing the employer does not need to act

The employer receives a monitoring outcome and enough advice to act. It does not receive the worker's clinical file. Keep the purpose, the consent and the reporting pathway distinct.

Accountability across the whole programme

Clinical independence sits inside a shared prevention system.

Role	Owns or leads	Must receive
PCBU or mine operator	Risk assessment, RMP appointment, cost, worker consultation, controls, records and action	An actionable report and control recommendations
WHS team and occupational hygienist	Exposure characterisation, sampling strategy, SEG interpretation, control verification	Relevant clinical trends, without unnecessary personal detail
Supervising RMP	Protocol, clinical supervision, interpretation, worker communication, required notification	Tasks, exposure data, controls, incidents and previous valid results
Worker	Accurate exposure and health history, attendance, participation in decisions	Purpose, results, implications and a copy of the report
Regulator	Oversight and response to required notifications	Reports required under the WA notification rules

At mines, commissioning PCBU to mine operator to worker to regulator is a defined pathway under rr. 675L–675O.

Different recipients need different information

CONFIDENTIAL

Worker

Explanation of the results. A copy of the report. Clinical advice and any referral. Records portable to the next RMP or employer.

ACTIONABLE

PCBU

The monitoring outcome. Capacity to continue exposure work. Required remedial action. Relevant control recommendations.

STATUTORY

Regulator

RMP notification where results are consistent with exposure. Prompt notification on medical removal. The specified forms and supporting results.

At least **30 years** for hazardous chemical records

At least **40 years** for asbestos records

Health reports stay confidential. Health monitoring is not a route to general medical-record disclosure.

03

The exposure standard just moved

Workplace exposure limits commence in Western Australia on 1 December 2026 — 69 days after this session.



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Same units, a harder line

UNTIL 30 NOVEMBER 2026

Workplace exposure standards

In force since the last full review. Treated by many workplaces as a target to manage toward rather than a ceiling.

FROM 1 DECEMBER 2026

Workplace exposure limits

From 1 December 2026. Same measurement units, renamed and framed explicitly as a limit that must not be exceeded, aligned to international terminology.

For airborne carcinogens with no identifiable safe level the duty is different again: eliminate the exposure, or minimise it so far as is reasonably practicable. There is no compliant number to hit.

The review touches more than a few numbers

What changed	Detail
33 substances	Reclassified as non-threshold genotoxic carcinogens. No safe exposure level exists, so the duty shifts to eliminate or minimise rather than measure and comply.
9 substances on hold	Crystalline silica, formaldehyde, benzene, chlorine, copper, hydrogen cyanide, hydrogen sulfide, nitrogen dioxide and titanium dioxide. Final limits still under impact analysis.
New to the list	Diesel particulate matter gets a specific limit for the first time — directly relevant to underground and enclosed-cab mining.
Already tighter	Welding fume was cut from 5 to 1 mg/m ³ in 2024, ahead of the general WEL date. A preview of the scale of change elsewhere.

Sources: Safe Work Australia WES review; industry summaries of the 2026 WEL list. Verify final values against Safe Work Australia's published list before relying on them.

What WorkSafe is asking PCBU's to do before 1 December

1 Reconcile the inventory

Review the chemical register against the WEL list using Safe Work Australia's Hazardous Chemical Information System. Include substances generated by the work, not only those purchased.

2 Reassess the controls

Substitution, isolation, ventilation, engineering controls and PPE, wherever a limit has moved.

3 Run air and health monitoring

Where exposure is possible. Bring in an occupational hygienist for anything borderline.

4 Update the paperwork that people actually use

Safety data sheets, risk assessments and safe work procedures, to match the new limits.

5 Consult the workforce

On what is changing and why. This is a WHS Act consultation duty, not a courtesy.

04

From duty to defensible protocol

The legal trigger tells you that you must monitor. It does not tell you what test will detect anything.



Three monitoring streams, three different questions

AIR MONITORING

What reached the breathing zone?

Personal or area sampling describes exposure concentration and control performance.

BIOLOGICAL MONITORING

What entered the body?

Blood, urine or breath may integrate inhalation, skin absorption and ingestion. Interpretation depends on sampling time and toxicokinetics.

HEALTH MONITORING

Has exposure affected health?

History, examination and investigations look for early biological or clinical change.

A normal health test never proves the controls were adequate, particularly where latency is long or the test is insensitive. A biological exposure index is an interpretation aid, not an airborne limit.

What a defensible protocol is built from

1 Exposure route

Inhalation, skin absorption, ingestion, or a mix. Skin and ingestion are the routes air monitoring cannot see.

2 Critical effect

Respiratory, neurological, haematological, renal, hepatic, dermal or sensitisation.

3 Toxicokinetics

Half-life, accumulation, metabolism and time since last exposure — these set the sampling window.

4 Test validity

Sensitivity, specificity, reference range and whether the technique is a recognised one.

5 Decision threshold

What result changes exposure, referral, controls or work placement — agreed before anyone is tested.

Silica did not wait for December

One of the nine substances still under WEL impact analysis — but its health monitoring test has already changed.

	Current WA requirement
Imaging	Chest X-ray is no longer the screening test. Low-dose HRCT of the whole chest at 1 mSv or less for the entire study, 1.5 mm slices or finer with no interslice gap, including expiratory imaging.
Reading and reporting	A radiologist with expertise in these scans, reporting the modified Kusaka ICOERD classification alongside the standard report, with the dose length product included.
Category A — engineered stone	Annual health assessment and spirometry. LDHRCT every 2 years after 2 years of significant exposure.
Category B — other industries, including mining	Annual health assessment and spirometry. LDHRCT every 5 years after 5 years of significant exposure.
New workers	Baseline assessment and spirometry. No entry CT unless there is prior significant exposure or a clinical indication.
Leaving the industry	Assessment and exit LDHRCT, unless imaging was completed within the previous 2 years.

A printed number is not a valid test

Spirometry is usually the weakest technical link in respiratory health monitoring.

MINIMUM QUALITY

- At least three acceptable manoeuvres
- The largest two FVC values within 0.15 L
- The largest two FEV₁ values within 0.15 L
- Flow-volume curves available to the supervising RMP
- Trained operator, calibrated equipment, TSANZ or ATS standard

INTERPRETATION

One result

Read against test quality, the reference equation, symptoms and current exposure.

WHERE THE VALUE IS

The trend

Change from the individual's own valid baseline, and how that change sits against the exposure group.

A poor-quality baseline can manufacture an apparent decline, or conceal a real one. Fix the baseline before arguing about the follow-up.

05

Completion is the control

A technically correct protocol that the worker never completes leaves the duty undischarged and the control assurance unearned.



Same regulation, same workers, same test

OFFSITE REFERRAL

13%

completed their LDCT when referred to a radiology
appointment in their own time

ONSITE DELIVERY

96%

completed the same test once it moved onto the site
medical schedule

Source: TiBi Healthcare programme data. Retain the denominator, campaign period and cohort definition before reusing this figure.

The variable that moved was not the regulation

WHAT BREAKS OFFSITE

- Booking, travel and timing become the worker's problem, not the programme's
- Often a trip to another town on a rostered day off
- Chain of custody sits with a third party the PCBU does not control
- Nothing flags a missed appointment until an audit finds it

WHAT ONSITE CHANGES

- The test comes to the roster, inside an existing site medical or induction week
- Assessment, spirometry and imaging run as one coordinated pathway
- Missed slots and incomplete components are visible in real time
- RMP oversight and referral are built into delivery, not bolted on after

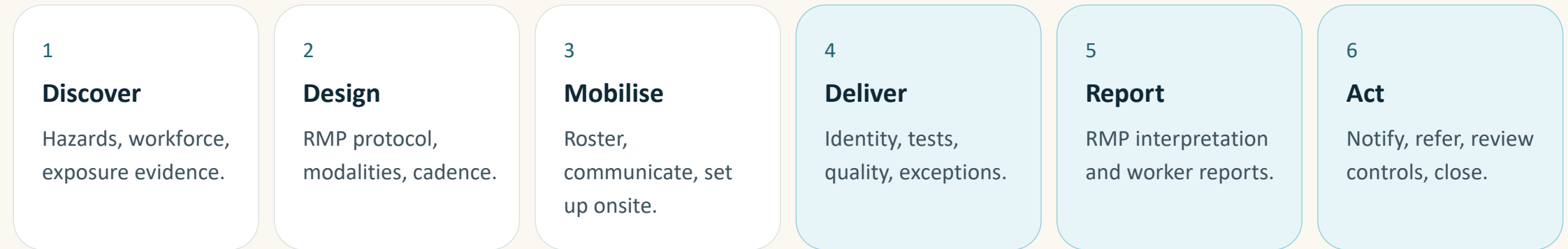
This is a systems problem, not a behaviour problem. The clinical standard stays fixed; only the access model changes.



TiBi mobile health unit on site in the Pilbara.

One governed workflow, from exposure question to action

The same record follows eligibility, attendance, validity, result, notification and closure.



Onsite does not mean automatic. Every hand-off still needs a named owner and a visible status.

Five recurring failures, and what to measure instead

Failure	What it causes	What to measure
Eligibility drift	Registers do not follow changing tasks, contractors, rosters or exposure evidence	Eligible workers as a share of the exposure-defined cohort
Protocol mismatch	A generic annual medical is substituted for exposure-specific, RMP-designed monitoring	Share of protocols RMP-designed against current exposure data
Access friction	Travel, bookings, lost shifts and FIFO cycles turn referrals into non-attendance	Completed valid components as a share of required components
Variable test quality	Spirometry, imaging or sample timing is invalid or not interpretable	Share of tests meeting acceptability criteria; days from due date to completion
No closure	Reports, notifications, referrals and control actions are not tracked to completion	Abnormal results closed within target, and days to close

These are recommended assurance measures, not prescribed statutory KPIs. High attendance can coexist with weak compliance if the wrong cohort was selected.

Five questions for any health monitoring programme

If your team can answer these with evidence, the programme is probably connected to risk management.

1 Which task and exposure pathway justifies each test we order?

Not the job title, and not last year's package.

2 Does the RMP hold our current exposure data?

Or an SDS binder from the last audit cycle?

3 Can the technique detect the relevant early effect?

For silica: LDHRCT rather than chest X-ray, at the right category frequency for real exposure years.

4 What decision follows an abnormal result or adverse trend, and who makes it?

Agreed in advance, with notification, removal, referral and control-review rules written down.

5 Do the records meet 30 or 40 years, and can the worker carry them?

Portable to the next employer or RMP, not locked in one clinic's system.

Three things to leave with

1 Start at the trigger, not the appointment

Regulation 368 and, at mines, regulation 675F decide who must be monitored. A generic annual medical discharges neither.

2 The duty is shared, and neither side can discharge it alone

The PCBU owes the RMP an exposure picture. The RMP owes the PCBU an actionable outcome, the worker a report they can carry, and the regulator a notification.

3 Completion is a compliance control, not a courtesy

Same regulation, same workers, same test: LDCT completion moved from 13 per cent to 96 per cent when the pathway came to the site.



Questions

Beyond boundaries

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Sources and further reading

Legislation	WHS (General) Regulations 2022 (WA), Part 7.1 Division 6, rr. 368–378 and Schedule 14
Legislation	WHS (Mines) Regulations 2022 (WA), Part 10.3 Division 2, rr. 675F–675P
PCBU duties	WorkSafe WA, health monitoring duties for persons conducting a business or undertaking
RMP duties	WorkSafe WA, legislative requirements for registered medical practitioners
Silica	WorkSafe WA, health monitoring: silica (respirable crystalline)
WEL transition	WorkSafe WA, WES to WEL transition, commencing 1 December 2026
National	Safe Work Australia, health monitoring resources and the workplace exposure standards review
Programme data	TiBi Healthcare onsite LDCT completion data, supplied by the presenter