

# Plant operator Job Description

A free job description template for Australian mining operations

Company Name: \_\_\_\_\_

Location: \_\_\_\_\_

Employment Type: \_\_\_\_\_

Reports To: \_\_\_\_\_

Date: \_\_\_\_\_

## DISCLAIMER

This plant operator job description template is designed to reflect Australian workplace standards and mining industry practices at the time of publication. Confirm the applicable modern award or enterprise agreement for your business and ensure compliance with all relevant work health and safety laws.

## 1. Position overview

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A processing plant operator (also known as a mineral processing operator or process operator) runs and monitors the fixed plant that turns mined ore into saleable product. Working across crushing, grinding and milling, screening, flotation, thickening and filtration, the operator keeps the process running safely and to target from both the field and the central control room (CCR).

Day to day, operators conduct pre-start inspections, take and log samples, adjust set-points, clear blockages, and isolate and lock out equipment for maintenance, while recording production and downtime. Because processing plants typically run continuous 24/7 operations, the role is worked on rotating day and night shifts, often on a fly-in fly-out (FIFO) basis at remote sites.

In Australia, processing plant operators are usually covered by the Mining Industry Award 2020 (MA000011), which covers metalliferous mining and on-site mineral processing. Plant operators generally sit around Level 2 to Level 4 depending on experience and the range of plant they run competently. Many larger operations instead apply an enterprise agreement. This template provides a foundation for clear, compliant job descriptions, and once hired you can manage rotating crews with mining rostering software.

## 2. Key responsibilities

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### Plant operation

Operating and monitoring fixed processing plant — crushers, mills, screens, flotation cells, thickeners and filters — to meet throughput and recovery targets.

### Control room monitoring

Watching process variables from the central control room (CCR), adjusting set-points and responding to alarms and trends.

### Sampling and quality

Taking process samples, running field tests and logging results to help keep grade and recovery within specification.

### Pre-starts and inspections

Conducting pre-start checks, routine field inspections and clearing blockages or spillage to keep the plant running safely.

### Isolation and lock-out

Isolating and locking out equipment for maintenance, following permit-to-work and tag-out procedures.

### Records and compliance

Recording production, downtime and shift-handover notes, and following work health and safety and environmental procedures.

### 3. Skills and attributes

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- Mechanical aptitude: Practical understanding of process equipment, pumps and conveyors, and the confidence to fault-find and respond to plant issues.
- Process monitoring: Ability to interpret control-room readings, trends and alarms and take timely corrective action.
- Safety focus: Strong commitment to isolation, permit-to-work and WHS procedures, and to looking after crew mates on site.
- Shift readiness: Reliability across rotating day and night shifts, punctual handovers and consistent performance through long swings.
- Teamwork: Collaborative attitude on a small shift crew, clear handovers and support for maintenance and other operators.
- Fatigue management: Self-awareness and discipline to manage fatigue on continuous 12-hour shifts and remote FIFO rosters.

### 4. Qualifications and requirements

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The requirements for processing plant operator positions vary with site, commodity and plant complexity. Some are mandatory, while others are preferred or desirable and can be gained on the job.

- Site inductions (required) — Standard site and safety inductions completed before starting on site
- Working rights (required) — Eligibility to work in Australia
- Working at heights / confined space — Tickets for working at heights and confined-space entry where the role requires them
- Certificate II/III in Process Plant Operations — Certificate II/III in Process Plant Operations, or relevant RII/PMC units of competency, is desirable
- Pre-employment medical (required) — Pass a pre-employment medical and drug and alcohol screen, standard for mine-site roles
- Previous processing experience — Prior experience in a mineral processing or heavy-industry plant is advantageous but not essential

### 5. Working conditions

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- Continuous 12-hour rotating day and night shifts
- Fly-in fly-out (FIFO) work at remote sites on set roster swings
- Exposure to dust, noise, vibration and process chemicals
- Mandatory personal protective equipment (PPE) at all times
- Physical work including climbing, standing and clearing blockages
- Strict fatigue management and work health and safety compliance

## 6. Award information

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### Mining industry award 2020

Most processing plant operator positions are covered by the Mining Industry Award 2020 (MA000011), which applies to metalliferous mining and on-site mineral processing. This modern award sets minimum pay rates, penalty rates, allowances and conditions. View current Mining Award pay rates.

For FY2026/27, adult classifications range from Introductory at \$27.53 per hour up to Level 7 at \$37.62 per hour, with processing plant operators typically sitting around Level 2 to Level 4. Casual employees receive a 25% loading. Many large mining operations apply an enterprise agreement that lifts pay above the award, so always confirm which instrument covers your site. Use award interpretation software to calculate pay accurately across rotating shifts.

### Penalties, loadings and allowances

Continuous processing plants run around the clock, so penalty rates and shift loadings are central to plant operator pay. Under MA000011, overtime and weekend work attract Saturday penalties of 150% for the first three hours and 200% thereafter, Sunday at 200%, and public holidays at 250%. Afternoon and night shifts attract a 15% loading, rising to 30% for permanent night shift, and an underground allowance of \$2.06 per hour applies where relevant.

Because rotating 12-hour rosters mix ordinary hours, penalties and overtime, accurate interpretation matters. Model shift costs with the overtime and penalty rate calculator and shift cost calculator before you build the roster.

## 7. Frequently asked questions

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### About the role

Q: What does a plant operator do in mining?

A mineral processing plant operator runs and monitors the fixed plant that turns ore into saleable product — crushing, grinding and milling, screening, flotation, thickening and filtration. Working from the field and the central control room, they conduct pre-starts, take samples, adjust set-points, clear blockages, isolate equipment for maintenance and record production and downtime, usually on continuous 24/7 shifts.

Q: What award covers plant operators in Australia?

Most processing plant operators are covered by the Mining Industry Award 2020 (MA000011), which applies to metalliferous mining and on-site mineral processing. Many larger operations instead apply an enterprise agreement that lifts pay and conditions above the award, so always confirm which instrument covers your site.

Q: What classification level should I use for a plant operator?

Under the Mining Industry Award, processing plant operators typically sit around Level 2 to Level 4 depending on experience and the range of plant they can run competently. New starters begin lower and progress as they take on more equipment and control-room responsibility. See our Mining Award pay rates guide for current rates at each level.

Q: What is the difference between a plant operator and a plant maintenance role?

A plant operator runs and monitors the process, keeping the plant producing to target and responding to alarms and blockages. A maintenance tradesperson (fitter, boilermaker or electrician) repairs and services the equipment. Operators isolate and lock out plant so maintenance can work safely, then return it to service — the two roles work closely together on shift.

## Qualifications

Q: What tickets and qualifications do plant operators need?

Mandatory requirements usually include site and safety inductions, working rights in Australia, and passing a pre-employment medical and drug and alcohol screen. Depending on the role, working at heights and confined-space tickets may be required. A Certificate II/III in Process Plant Operations, or relevant RII/PMC units of competency, is desirable but often gained on the job.

Q: Can I hire plant operators without experience?

Yes. Many operations hire and train operators without prior processing experience, especially for entry-level positions. Focus on mechanical aptitude, safety attitude, reliability across rotating shifts and willingness to complete tickets and site training. Clear job descriptions help candidates understand the FIFO and shift commitment and self-select appropriately.

Q: Do plant operators need a Certificate in Process Plant Operations?

A Certificate II or III in Process Plant Operations (or relevant RII/PMC units) is highly regarded but not always mandatory. Many employers list it as a preferred qualification and support operators to complete it on the job through a traineeship, while entry-level candidates start with site inductions and structured training.

Q: What medical and screening requirements apply?

Mine-site roles almost always require a pre-employment medical and a drug and alcohol screen, with ongoing random testing on site. Some roles also require specific fitness assessments given the physical nature of clearing blockages, climbing and working long shifts. Confirm your site's requirements and note them clearly in the job description.

## Employment

Q: Should I hire casual or permanent plant operators?

This depends on your operation. Permanent operators suit continuous plants that need stable, trained crews on set roster swings. Casual employees offer flexibility for cover and peaks but attract a 25% loading. Many sites run a permanent core crew with casual or contract operators for leave cover and shutdowns.

Q: What penalty rates apply to plant operators?

Under the Mining Industry Award, Saturday work is paid at 150% for the first three hours and 200% thereafter, Sunday at 200% and public holidays at 250%. Afternoon and night shifts attract a 15% loading, rising to 30% for permanent night shift, plus an underground allowance of \$2.06 per hour where relevant. Use award interpretation software to calculate rates accurately.

Q: How does FIFO affect a plant operator's pay and conditions?

Fly-in fly-out work is worked on set roster swings (for example 2:1 or 8:6) with employer-provided flights, accommodation and meals, and rosters built around continuous 12-hour shifts. Pay is often set by an enterprise agreement above award minimums, and fatigue management is a core condition. See FIFO roster patterns explained and mining and FIFO worker pay for detail.

Q: What should I include in a plant operator employment contract?

Key elements include position title and classification level, employment type (casual, part-time or full-time), the applicable award or enterprise agreement, hourly rate and shift loadings, roster pattern, site location and FIFO arrangements, required tickets, and WHS obligations. Use our digital employment contracts to simplify this process.

## Rostering

Q: How do I roster plant operators for a 24/7 plant?

Continuous plants need a panel of shift crews covering rotating day and night shifts so the plant is never unattended. Balance coverage with fair rotation, adequate breaks between swings and clear handovers. Mining rostering software helps build compliant rotating rosters and gives crews visibility of upcoming shifts. See our guide on how to roster mining staff.

Q: How do I manage fatigue on rotating 12-hour shifts?

Fatigue is a major safety risk on continuous 12-hour rosters and long FIFO swings. Limit consecutive shifts, allow adequate rest between day and night rotations, and monitor overtime and hours worked. Read managing fatigue on mining FIFO rosters and use time and attendance tools to track actual hours worked.

Q: How do penalty rates and overtime affect roster costs?

Rotating rosters mix ordinary hours, night loadings, weekend penalties and overtime, so labour cost varies a lot between shifts. Model different roster patterns before you commit using the overtime and penalty rate calculator and the shift cost calculator, then apply rates automatically with award interpretation.

Q: What are a plant operator's WHS obligations on shift?

Operators must follow isolation and permit-to-work procedures, wear required PPE, complete pre-starts, report hazards and manage their own fatigue. Employers have parallel duties to provide safe systems of work and training. See mining WHS employer obligations for a fuller overview of duties on a mine site.