Power Station Operator interview questions

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What to expect

Power station operators are interviewed by a panel that usually includes a shift supervisor or operations manager. The questions test your technical understanding of plant systems, your safety judgement and how you perform on a rotating roster.

- **Process and technical:** Questions that ask you to walk through a plant system, a start-up sequence or a control adjustment.
- **Safety and compliance:** Questions about permit to work, isolations, lock out tag out and regulatory requirements.
- **Scenario and fault response:** Questions that put you in a live fault, a trip or an abnormal condition and ask what you would do.
- **Behavioural and teamwork:** Questions about past experience working in a control room team, communicating with maintenance and managing conflict.
- **Shift work and reliability:** Questions about night shifts, weekends, public holidays and how you stay healthy and dependable.

Interviews often begin with a short introduction from the panel about the site and the roster, followed by technical questions on plant operations. You may be asked to walk through a recent fault or a start-up procedure. Safety and scenario questions come next, often blended with behavioural questions. Some employers include a site tour or a control room simulation. The interview usually ends with your questions about training, shift patterns and progression.

1. Walk me through how you would start up a generating unit from cold, including the key checks and communications.

Why they ask

This tests your understanding of plant systems, procedures and safe sequencing.

How to structure your answer

Process walk-through. Start with pre-start checks, then describe the sequence step by step, including who you communicate with and what parameters you watch.

Example answer

“I would begin by confirming the unit is clear for start-up and that all maintenance isolations are removed. I check the boiler drum level, fuel supply, air flow and turbine oil systems. I let the shift supervisor know I am ready and confirm the control room is manned. I start the auxiliary systems first, then light the boiler and bring it up to pressure slowly, watching drum level and steam temperature. Once steam conditions are stable, I roll the turbine and bring it up to speed, synchronise to the grid, and then increase load gradually while monitoring voltage, frequency and generator output. I record each step and keep the supervisor informed if anything moves outside the expected range.”

2. Tell me about a time you identified an abnormal condition and responded to it.

Why they ask

This checks your attention to detail, problem solving and ability to act under pressure.

How to structure your answer

STAR: situation, task, action, result.

Example answer

“During a night shift, I noticed the feedwater pump current was oscillating more than usual. I checked the trend on the DCS and saw the discharge pressure was drifting. I alerted the shift supervisor and started the standby pump to maintain flow. We isolated the pump and found a worn seal. By acting early, we avoided a forced outage and kept the unit running until the planned maintenance window. I logged the event and handed it over clearly to the day shift.”

3. A turbine trips unexpectedly during your shift. What do you do in the first ten minutes?

Why they ask

This tests your judgement under pressure and your knowledge of emergency procedures.

How to structure your answer

Judgement under pressure: immediate safety, stabilise plant, communicate, then investigate and report.

Example answer

“First I confirm the turbine has tripped and check that the generator has come offline safely. I make sure the boiler is not overpressurising and I bring the unit to a safe state following the emergency procedure. I call the shift supervisor immediately and let them know what has happened. I check the alarms on the DCS to understand the cause and I do not reset anything until I have authorisation. I keep the control room calm and make sure the next shift gets a full handover.”

4. How do you ensure you comply with safety and regulatory requirements when isolating equipment for maintenance?

Why they ask

This tests your knowledge of permit to work, lock out tag out and Australian WHS requirements.

How to structure your answer

Process and compliance: describe the system you follow, from permit to isolation to verification and handback.

Example answer

“I follow the site permit to work system. I confirm the scope of the job with the maintenance crew, then identify all energy sources. I isolate the equipment, apply locks and tags, and test for zero energy before issuing the permit. I record the isolation in the log and I make sure the area is safe. When the work is finished, I check the equipment is ready, remove the isolation and hand it back to operations with a clear record. I also make sure the work meets WHS requirements and any relevant Australian Standards.”

5. Describe a time you had to hand over a complex situation to the next shift. How did you make sure nothing was missed?

Why they ask

This tests your communication, attention to detail and teamwork across a roster.

How to structure your answer

STAR, with a focus on the handover process and the outcome.

Example answer

“We had a boiler feed pump running on a temporary repair and I needed to hand over to the next shift. I wrote up a clear summary of the issue, what we had done, and what to watch for. I walked the incoming operator through the DCS trends and showed them the isolation log. I stayed back until they were comfortable and we agreed on a check schedule. The next shift caught a small pressure change early and adjusted the pump, so we avoided another failure.”

6. This role involves night shifts, weekends and public holidays. How do you manage your health and reliability across a rotating roster?

Why they ask

This tests your understanding of shift work and whether you can sustain the demands of the role.

How to structure your answer

Behavioural and reliability: give a real example of how you manage sleep, nutrition and handover discipline.

Example answer

“I have worked rotating shifts for several years, so I have a routine. I keep my sleep schedule as consistent as I can, I eat properly before night shifts, and I plan my days off to recover. I make sure I am alert for handover because that is when mistakes can happen. I also look out for my teammates and speak up if I am not fit for duty. I know that reliable attendance is part of the job and I take that seriously.”