

Welding Inspector interview questions

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What to expect

Welding Inspector interviews test your technical knowledge, your eye for detail and how you handle pressure when a weld needs to be rejected. Employers want to know you can read a WPS, apply the right standard and communicate a non-conformance without losing the room.

- **Process:** How you plan and carry out an inspection from review to close-out.
- **Technical:** Acceptance criteria, standards and non-destructive testing methods.
- **Behavioural:** A time you found a defect or disagreed with a supervisor about a weld.
- **Scenario:** A welder uses the wrong consumable or a joint fails visual inspection.
- **Safety:** Managing safety during NDT, working at heights or in confined spaces.
- **Client-facing:** Explaining a rejection to a client or contractor who disputes it.

Usually a phone screen with a recruiter or inspection manager, followed by a technical interview with a senior inspector or QA manager. Some employers include a practical assessment where you inspect sample welds with gauges or review a WPS and ITP. Site-based roles may add a site walk-through and a safety induction.

1. Walk me through how you prepare for an inspection on a new fabrication job.

Why they ask

This shows whether you work from the documentation or just turn up and look at welds.

How to structure your answer

Walk-through chronological. Start with drawings, WPS and ITP. Cover welder qualifications and consumables. Finish with records and close-out.

Example answer

"First I review the drawings, the WPS and the ITP to understand what needs inspecting and at what hold points. I check the welder qualifications and consumable certificates against the job. Then I confirm the joint preparation before welding starts, and I set up a schedule for visual and NDT checks. During inspection I record results against the acceptance criteria, and if I find a defect I raise a non-conformance and follow it through to close-out. At the end I compile the inspection records for the MDR."

2. Tell me about a time you found a weld defect that others had missed.

Why they ask

This tests your attention to detail and whether you can act on a defect without being asked.

How to structure your answer

STAR. Situation, task, action, result. Be specific about the defect and the standard you applied.

Example answer

"On a structural steel project, a welder had completed a fillet weld on a moment connection. The visual inspection looked fine, but I used an undercut gauge and found the leg length was short. I checked the WPS and confirmed the minimum size. I raised a non-conformance, had the weld removed and re-welded, and then I ran a toolbox talk with the crew about checking leg length before they moved on. The connection passed re-inspection and the client accepted the close-out."

3. You see a welder using a consumable that is not the one specified in the WPS. What do you do?

Why they ask

This is a judgement-under-pressure question. It tests whether you stop the job and follow the process.

How to structure your answer

Judgement under pressure. Stop, verify, isolate, escalate, prevent recurrence.

Example answer

"I would stop the job immediately and ask the welder to pause. I would check the consumable against the WPS and the job pack. If it is wrong, I would isolate the affected weld, raise a non-conformance, and inform the supervisor. I would then check whether any other joints were welded with that consumable, and if so, arrange for NDT or cut-out. I would also remind the crew of the consumable control procedure and make sure the correct consumables are available at the point of use."

4. What acceptance criteria do you apply for undercut on a butt weld under AS/NZS 1554.1?

Why they ask

This tests your technical knowledge and whether you can apply a standard rather than guess.

How to structure your answer

Explain and apply. Name the standard, outline the criteria, describe how you measure, and state the action if it fails.

Example answer

"For AS/NZS 1554.1, undercut is a surface defect, and the acceptance criteria depend on the category of the weld and the thickness. Generally, undercut must not reduce the leg length or throat thickness beyond the limits in the standard. I check the depth with a gauge and compare it to the maximum allowed. If it exceeds the limit, I reject the weld and raise a non-conformance. I would also check the WPS for any additional requirements. The key is to apply the standard that the job specifies, not a personal rule of thumb."

5. How do you manage safety when you are coordinating radiographic testing on a live site?

Why they ask

This checks that you understand radiation safety and can control an exclusion zone on a working site.

How to structure your answer

Risk assessment and controls. Identify the hazard, describe the controls, state your authority to stop the job.

Example answer

"Radiographic testing uses ionising radiation, so safety is the first priority. I check the NDT contractor's radiation safety plan and confirm the area is barricaded with the correct signage. I make sure only authorised people enter the exclusion zone, and I coordinate with the site supervisor to stop other work nearby. I also check that the contractor holds the right licence and that the equipment is calibrated. If there is any doubt, I stop the job until the controls are in place."

6. A client disputes your rejection of a weld. How do you handle it?

Why they ask

This tests your communication and whether you can stand your ground with evidence rather than argument.

How to structure your answer

Communication and evidence. Stay calm, show the standard and measurement, offer a second opinion, document the outcome.

Example answer

"I would stay calm and ask the client to walk through the weld with me. I would show them the acceptance criteria in the standard and the measurement I took with the gauge. I would explain why the defect matters for the integrity of the joint. If they still disagree, I would offer to have a second inspector review it or arrange NDT to confirm. I would document the conversation and the outcome. In the end, my job is to make sure the weld is safe and compliant, but I want the client to understand the decision, not feel blindsided."