

Hot-Tapping of consumer piping

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Information for gas fitters on the application process for hot-tapping on consumer piping.

Hot-tapping is the procedure of making a new pipeline connection while the current pipeline remains in service, without isolating the gas supply or requiring purging. Hot-tapping involves attaching a branch connection and valve on the outside of an operating pipeline, and then cutting out the pipeline wall within the branch and removing the wall section through the valve. This can avoid product loss, emissions, and disruption to customers.

The Gas Act 1997 and Gas Regulations 2012 prescribe Australian Standard AS/NZS5601 as the requirement for gas installations.

AS/NZS5601.1:2022 requires gasfitters to gain the approval of the Technical Regulator prior to commencing any work involving a hot tap.

3.7 Hot-tapping of branch fitting to consumer piping

When hot-tapping a branch into consumer piping, the Technical Regulator shall be consulted prior to the commencement of any work.

The work shall be planned, coordinated, and carried out by a competent person.

The planning shall include a documented contingency or emergency plan in the event of gas escape, fire or explosion while the work is in progress.

Hot-tapping Application Process

All hot-tapping work requires an application to be made to the Office of the Technical Regulator.

The application process involves identifying the competency of the persons undertaking the hot-tapping (eg. gas fitter or accredited pipe welder) and the adequacy of documentation covering the hot-tapping process.

The gas fitter is required to submit the hot-tapping procedures that will be used, including work specific details, emergency response plan and test procedure. Evidence demonstrating the competency of the gasfitter or pipe welder undertaking the hot-tapping work will also need to be provided.

As the application process to undertake hot-tapping work can take time to complete successfully, gas fitters seeking to undertake hot-tapping work need to complete the application prior to commencing the job.

Demonstration of planning and co-ordination

Applicants will need to demonstrate that any hot-tapping operation is carried out in accordance with a Job Safety Analysis (JSA) or equivalent and a hot-tapping procedure. The hot-tapping procedure is to be based on training, experience, best practice and other relevant information and is to be documented and followed throughout the process.

The procedure shall address the following as a minimum:

- 1) Address / Location of the proposed hot-tap.
- 2) Specific welding, brazing, electrofusion, or other methodology to be used.
- 3) Specific hot-tapping procedure
 - a) Includes consideration for the relative size of the branch to the existing service.
 - b) Determination of how the fusion type is relative to the fusion material.
 - c) Location of hot-tap in accordance with AS/NZS 5601.
- 4) Testing requirements including test procedure and equipment.
- 5) Hot-tapping tools and equipment to be used and calibration certificates, if required.
- 6) Job Safety Analysis (JSA).
- 7) Emergency response plan.
 - a) Potential emergency scenarios.
 - b) Description of isolation process.
 - c) Emergency contact details.
- 8) Other relevant information required based on the complexity of the hot-tapping task performed.

Demonstration of competency

The OTR must be notified of the competent person who will be performing the hot-tap. Demonstration of competencies of the person performing the hot-tap shall be provided as part of the application, this includes:

- 1) Detailed experience of performing welding, brazing, and saddle or electrofusion.
- 2) Detailed experience of performing hot tapping.
- 3) Accreditation of the person performing the hot-tap.

Responsibilities

Applicants notifying the OTR of a hot-tap are required to demonstrate that controls are effectively implemented.

The gasfitter will be responsible for demonstrating the integrity of the hot tapping by:

- Pressure testing the fused fitting (prior to tapping into the live pipe) in accordance with *AS/NZS 5601.1*
- Submission of piping test report to the Office of the Technical Regulator.
- Submitting a gas ECOC on the completed work.
- Photograph of work completed.

Contact the Office of the Technical Regulator for more information

Online otr.sa.gov.au
Email otr@sa.gov.au
Phone 8226 5722



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