

ASSET CREATION DEVELOPER PROCESS

INSTRUCTIONS TO UNDER PRESSURE CUT-IN CONNECTION (UPCIC) PROVIDERS

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1. INTRODUCTION

These Instructions are provided for Under Pressure Cut-In Connection (UPCIC) Providers engaged to carry out Under Pressure Connections to Sydney Water's water mains.

Such connections avoid the need to shutdown an existing water supply when connecting to Sydney Water's water mains.

These Instructions form part of Sydney Water's Asset Creation Quality Management System. An overview of the Asset Creation Developer Process is contained in the Asset Creation Developer Process Quality System Overview.

Note: These procedures may be used to complement internal procedures applicable to Sydney Water.

2. ROLE OF THE UNDER PRESSURE CUT-IN CONNECTION PROVIDER

The UPCIC Provider's role is to:

- (a) Together with the listed Water Constructor, prepare:
 - a Project Safety Plan (PSP) for construction of the works which covers Site Specific Hazards identified by Sydney Water for the under pressure connection of the new works to the existing system (as per Job Specific Letter) and
 - an Environmental Management Plan (EMP)
- (b) ensure that the Project Safety Plan for the connection and any other site safety plan(s) are adhered to at all times with respect to the Under Pressure Cut-In Provider's own activities;
- (c) ensure all key personnel have Confined Space Certification in accordance with WorkCover's requirements;
- (d) carry out the under pressure cut-in connection in accordance with the Water Supply Code of Australia (Sydney Water Edition);
- (e) ensure that all key personnel are appropriately trained for all relevant duties.

3. CONDITIONS

Under pressure cut-in connections shall only be carried out in accordance with the following conditions:

- (a) On each occasion a new UPCIC system is proposed to be introduced, the (UPCIC) Provider must seek Sydney Water's prior approval to that system, and must provide to Sydney Water an Operations Manual or code detailing all materials, equipment and procedures used to carry out an "Under Pressure Cut-In Connection". The Manual shall contain information relevant to meeting Sydney Water's requirements including:
 - details of flanged offtake clamps including method for achieving the necessary clamping pressures (for the range of water main materials)
 - details of cutters appropriate for use on the range of water main materials

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- hole sizes and insert sleeve sizes for the range of connection types and sizes
 - anchorage arrangements to suit both the water main thrust resistance requirements and the support/sealing requirements for the service clamp
 - aspects relevant to OH&S, training of operators and a list of names of operators who it is intended will carry out this work.
- (b) (UPCIC) Providers are required to have in place a suitable Quality System covering all aspects of the Under Pressure Cut-In Connection process. Providers shall formally advise Sydney Water if a practice permitted in this documentation is not recommended by the relevant pipe or fitting manufacturer and/or is likely to result in unsatisfactory performance.

4. COMMENCEMENT OF WORKS

A request for an under pressure connection is to be made with the submission of the design package for Developer reticulation works. Sydney Water will convey to the Water Servicing Coordinator its principle decision as to whether an under pressure cut-in connection can be utilised.

The final decision to allow a UPCIC will be subject to the condition and accessibility of the main. This will be determined by Sydney Water's Developer Works Inspector at the time of the Pre-Connection Audit.

The decision will consider amongst other factors that:

- all works as constructed meet the Water Supply Code of Australia (Sydney Water Edition);
- all documentation for the works has been completed up to the connection Hold Point;
- the Developer Works Inspector verification, of the condition of the pipe and the existence of any obstructions, that could affect the connection.

The (UPCIC) Provider shall:

- (a) Obtain a copy of the Sydney Water's approval of the under pressure cut-in connection.
- (b) Ensure that all relevant inspection fees have been paid.
- (c) Submit a Construction Commencement Notice (CCN) to Sydney Water and liaise with the appropriate Developer Works Inspector for inspection of works.

No works are to commence until a written authority for connection of the new works to Sydney Water's existing system is provided by the Developer Works Inspector on the Project Validation Certificate. The connection arrangements will be included in the authority.

5. WORKS IN PROGRESS

If an under pressure cut-in connection has been approved and is to be utilised, the Water Constructor will make the necessary arrangements for the cut-in by a Provider and notify the Water Servicing Coordinator.

Sydney Water's Developer Works Inspector must be present at the time of connection.

If there is no impediment to proceeding with the connection, the UPCIC Provider shall:

- (a) ensure that all work is carried out in a safe, competent, efficient and hygienic manner in accordance with the Provider's Operations Manual or Code of Practice;
- (b) only utilise personnel who have the necessary skills, knowledge and experience required for the type of work performed;
- (c) take all necessary precautions to prevent contamination of the equipment and fittings and shall ensure a high standard of hygiene with respect to employees and all materials and equipment used in the works;
- (d) be responsible for ensuring that the Occupational Health and Safety Act and its Regulations are complied with at all times, including the use of appropriate personal protective equipment, clothing and footwear;
- (e) perform work in conjunction with other parties involved in the project, in accordance with an appropriate Project Safety Plan. Aspects addressed in the Project Safety Plan shall include:
 - measures to control vehicular/pedestrian movement in the vicinity of the site
 - safe entry to confined spaces
 - measures to prevent pipe failure
 - ensuring that the safety of the public is maintained at all times
- (f) immediately notify Sydney Water (Tel: 13 20 90) in the event of a leak or main break during or following cut-in, or any complaint from a member of the public. The designated Sydney Water Developer Works Inspector shall also be informed;
- (g) provide all necessary materials and equipment required to carry out the under pressure cut-in connection;
- (h) use only Sydney Water approved sluice valves and fittings – valves shall be installed so that they are vertical;

The (UPCIC) Provider shall ensure that the under pressure cut-in is carried out in accordance with:

- The Water Supply Code of Australia (Sydney Water Edition)
- Job specific Project Safety Plan that addresses Sydney Water's hazards
- All work relating to the connection is carried out by the person(s) named in the Providers Project Safety Plan
- Job specific Environmental Management Plan

- Connection carried out in the presence of Sydney Water's Developer Works Inspector.

If the under pressure connection cannot be performed in accordance with the (UPCIC) Provider's Operations Manual or the existing main should fail during the cut-in, any repairs to the main, conventional tee and/or valve connection will be carried out on charge to the Developer.

The Water Servicing Coordinator shall arrange for Sydney Water's approval of connection, using the conventional connection method.

In order to comply with its Customer Contract, Sydney Water may be required to provide five (5) working days notice in residential areas and ten (10) working days notice in industrial/commercial areas to its customers.

Corrective Action Requests may be raised on the (UPCIC) Provider where work is not performed in accordance with The Water Supply Code (Sydney Water Edition), the Project Specific Inspection and Test Plan for the relevant construction.

All Corrective Action Requests raised shall be satisfactorily closed off prior to final validation.

The following shall be provided for all Corrective Action Requests:

- Cause of problem/fault/non conformance
- Action to rectify
- Objective evidence that the specific problem/fault/non-conformance has been rectified
- Action to prevent recurrence.

Note: Verification will also be required to satisfy Sydney Water that similar problems/faults/non-conformances have not occurred on work already completed.

Without all of the above, a Corrective Action Request will not be closed off.

On satisfactory completion of the connection, Sydney Water's Developer Works Inspector will issue a Connection Report and other interim audit reports to the Water Servicing Coordinator. The Water Servicing Coordinator shall include these reports in the Project Completion Package which shall be forwarded to Sydney Water.

6. SUPPORTING DOCUMENTS

Documents associated with an Under Pressure Cut-In Connection are:

PI_Template 06A Inspection and Test Plan – Water Main Laying – Version 1
PI_Template 8 Construction Commencement Notice for Major Works
PI_Template 11 Water Project Validation Certificate
Generic Asset Hazards – At Point of Connection