

# SAFE WORK AROUND OR NEAR THE ACT GAS NETWORK

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THIS WORK INSTRUCTION DESCRIBES THE SAFE SYSTEM OF WORK WHERE TASKS ARE REQUIRED AROUND OR NEAR THE ACT GAS NETWORK

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# SAFE WORK AROUND OR NEAR THE ACT GAS NETWORK

## 1. SCOPE

This work instruction applies to tasks that are required around or near the ACT Gas Network. Work cannot commence unless Contact with Zinfra/Jemena has been made as indicated in this work instruction.

## 2. PURPOSE

This work instruction describes the safe system of work where tasks are undertaken around or near the ACT Gas Network.

## 3. QUICK REFERENCE GUIDE

TRANSMISSION AND PRIMARY PIPELINES 15000kPa/7000kPa – 250mm steel with a polyethylene coating	SECONDARY MAINS 1050kPa – 50mm to 450mm steel with a polyethylene coating	MEDIUM PRESSURE MAINS 210kPa – 75, 110 and 160mm plastic	MEDIUM PRESSURE MAINS 210kPa – 18 to 63mm plastic
<b>All excavation work, whether planned or unplanned <i>must</i> have current Dial Before You Dig (DBYD) drawings onsite <i>prior</i> to excavation work commencing. DBYD maps are a guide only, all items outlined below <i>must</i> be adhered to. Gas mains/pipes can only be located by Zinfra – Zinfra does not guarantee or certify/accredit other parties to locate pipes on the ACT Gas Network.</b>			
<p><b>NO Work to occur until an Encroachment Management Study has been received from Jemena. Works <i>must not</i> proceed unless supervised by Zinfra.</b></p>	<p><b>POT HOLING</b> <b>No</b> Zinfra standby person required when using a hydro-vac, but pipes <b>must</b> be located and marked first by Zinfra and an <b>Advice Form*</b> received. Hydro-vac water pressure must be no greater than 2000Psi for rotating nozzle.</p>	<p><b>POT HOLING</b> <b>No</b> Zinfra standby person required when using a hydro-vac, but pipes <b>must</b> be located and marked first by Zinfra and an <b>Advice Form*</b> received. Hydro-vac water pressure must be no greater than 1500 psi for fixed nozzle on nylon pipes.</p>	<p><b>POT HOLING AND EXCAVATING</b> <b>No</b> Zinfra standby person required. Pipes <b>must</b> be located and marked first by Zinfra and an <b>Advice Form*</b> received. Water pressure on hydro-vac must be no greater than 1500 psi for fixed nozzle on nylon pipes. If in doubt call Zinfra for advice on: 1300 503 237</p>
	<p><b>HOTWORKS</b> Protection (fireproof mats; form ply and or box coverings) must be in place when any hot works are being undertaken within 300mm of any gas network pipes, regardless of the pipes being exposed. Protection must also be in place where ignition sources are likely to be within 300mm of gas pipes. <b>Where protection cannot be put in place within 300mm of any gas pipes, Zinfra must be called and asked to advise on controls.</b> Systems of work regarding hot works near gas pipes can be found later in this document.</p>		
	<p><b>EXCAVATING WITHIN 1 METRE</b> Zinfra standby person and location marking <b>is</b> required when <b>any</b> excavation is carried out within 1 metre – this includes using a hydro-vac truck. <b>No</b> mechanical excavation to occur within 300mm including Hydro-vac.</p>		
	<p><b>VIBRATING ROLLERS/MAXIMUM MACHINE WEIGHT</b> <b>No</b> vibrating roller to be used within 3 metres of pipe. Maximum machine weight: &gt;1200mm pipe depth – 10 tonne per axle</p>		

	500mm-1200mm pipe depth – 8 tonne per axle <500mm pipe depth – whacker packer only		
	<b><u>ELECTRICITY NETWORK</u></b> <i>No Electricity will be laid within 500mm of the gas main. Approval is required before any work proceeds around the steel network. Standby person will advise as well.</i> <b>No HV or LV crossings over any steel gas main.</b>	<b><u>ELECTRICITY NETWORK</u></b> <i>No Electricity will be laid within 300mm of the gas main. Standby person will advise as well.</i>	

*\*Advice forms must be provided as part of site handover.*

## 4. ZINFRA CONTACTS

Zinfra Standby/Location Marking Contact Planned Works (3 weeks minimum lead-time required for planned works): [Canberra.planner@zinfra.com.au](mailto:Canberra.planner@zinfra.com.au) and 1300 503 237

Zinfra Standby Contact Unplanned Works: 1300 503 237 and ask to talk to Johan (Network) or Mark (Steel)

Reporting gas leaks (or emergencies on the Gas Network): 131909



## 5. HOT WORKS

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### 5.1 Total Fire Ban Days

For any hot works that are proposed on a Total Fire Ban (TFB) Day – refer to PR4648 – Hot Works on Total Fire Ban Days.

### 5.2 Work Site Assessment

Prior to any works commencing the Job risk Assessment (JRA) process must be undertaken in accordance with PR4625 Job Risk Assessment – controls as listed within this instruction that are implemented at a work site must be listed on the JRA form.

### 5.3 Use of Gas Detectors

Ensure that an approved gas detector is located within the excavation work site at all times when work is occurring in close proximity to gas pipes. The gas detector should be located as close as practical to heat/ignition sources (ignition sources include a cable spiking gun).

### 5.4 Heat Protection

Heat protection (fire proof mats; form ply and or box coverings) must be in place when any hot works are being undertaken within 300mm of any gas network pipes, regardless of the pipes being exposed. Examples of such protection can be found below.

Protection must also be in place where ignition sources are likely to be within 300mm of gas pipes. **Where protection cannot be put in place within 300mm of any gas pipes, Zinfra must be called and asked to advise on controls.**

FIGURE 1.

Fire Proof Mat:



Sheet of Form Ply:



Box Covering:



“A” – Frame



**NOTE: All protection covers must be supported when in use and not placed directly onto unsupported gas pipes.**

FIGURE 2. EXAMPLE:



## 5.5 Temperature at Pipes

When undertaking hot works, the temperature at the gas pipes must not exceed 60°C. This can be achieved by **ensuring fire proof mats are attached to/hung on form ply boards if the boards come into direct contact with flames or prolonged heating.**

## 5.6 Emergency Procedures

- Call the Jemena Emergency Response Centre on 131 909 for all gas leaks.
- Keep persons away from the gaseous area.
- Prohibit all sources of ignition – including smoking; vehicles; naked flame; cameras; mobile phones and electrical switches.
- If safe to do so, dampen the ground around the escaping gas to prevent static electricity igniting the gas. Note that excessive water may hamper repair work and cause gas supply issues.
- If the gas has caught fire, leave it. Contact ACT Fire and Rescue on 000/112 and the Jemena Emergency Response Centre on 131 909. **DO NOT ATTEMPT TO EXTINGUISH THE FIRE.** If safe to do so, dampen the surrounding areas to prevent them from also igniting.



## 6. SUPPORTING THE GAS NETWORK



It is important to note that support may be required for gas pipes due to excavation required in trenches where shared services exist. Examples of how such support can be implemented is found below. ***At no time should weight be placed on unsupported gas pipes, this includes protection for hot works.***

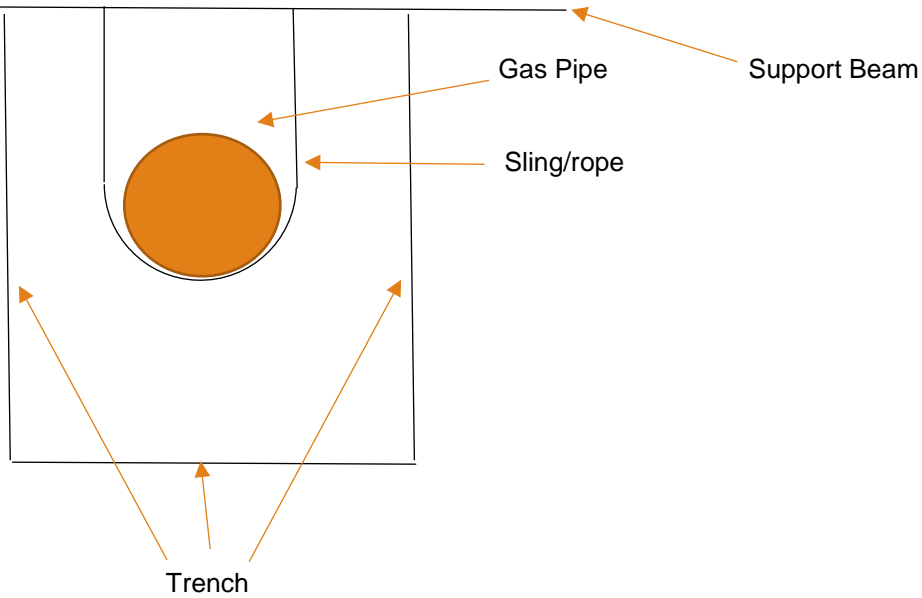
Discussions with and advice from Zinfra is required prior to any support of gas network pipes being implemented. Note – depending on the length of pipe requiring support, more than one of the following examples may be required.

**FIGURE 3.** EXAMPLE:

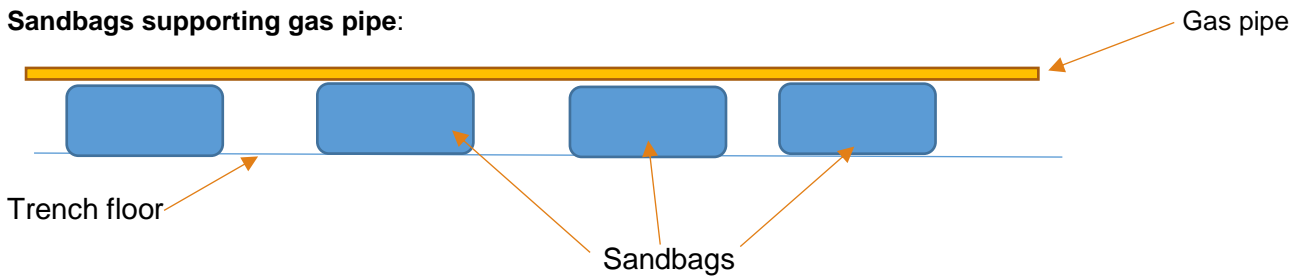


**FIGURE 4.**

**Support beam and sling/rope:**



**Sandbags supporting gas pipe:**



**VERSION CONTROL**

VERSION	DETAILS	APPROVED
1.0	Initial Document	Manager, Works Delivery

**DOCUMENT CONTROL**

DOCUMENT OWNER	PUBLISH DATE	REVIEW DATE
Bruce Hansen	29/07/2019	29/07/2021