

# Australian Industry **ozWELD**

# WINS!

WTIA National Diffusion Networks  
Project (NDNP) funded by the  
Federal and State and Territory  
Governments and industry



**AusIndustry**

**SUCCESS STORY NUMBER W05:** IMPROVED KNOWLEDGE OF WELD DEFECTS  
KEEPS WATER IN SOUTH AUSTRALIAN PIPES – *Training and demonstrations by WTIA  
Engineers up-skills personnel in the water industry*

## Background

Once common issues had been identified in each industry sector being tackled by the NDNP, WTIA's task was then to source potential technology solutions and present them to industry for evaluation and implementation.

A number of well-attended Technology Demonstrations and training workshops have been run in South Australia as part of the Water Industry Sectoral Project, and with the support of member SA Water. The Project is supported in SA by the Department of Trade and Economic Development, well aware of the importance of the State's water infrastructure.

## Weld defect workshops

In July 2005 demonstrations of latest technologies were conducted at SA Water's depots in Berri and Crystal Brook, directed at SA Water employees, contractors subcontractors involved in the design, construction and repair of water pipelines and water treatment facilities.

The welding defects training run in the afternoon for 31 delegates by WTIA's State Technology Manager Greg Terrell was well received by all in attendance. The workshop looked at the range of defect types, and focussed on their definition, causes, effects, prevention, detection, permissible levels and repair using a proven welding procedure.

The workshops introduced the delegates to the handy WTIA Expert Technology Tool, a Pocket Guide to Weld Defects.

This clearly-presented publication, sized to slip in the top pocket, details in pictures and words the most common defects in welds.

The delegates, who attended from as far away as Pt Lincoln and Happy Valley in SA, also learnt of the importance of benchmarking defects to specifications in the standards AS/NZS 1554.1 *Structural steel welding - Welding of steel structures* and AS 4041 *Pressure piping*.



*MIG  
welding of  
a water  
pipeline  
joint*

## Outcomes

It has been agreed that improvement in the general knowledge and understanding of the different types of weld defects and what causes them resulted from the demonstrations.

Self-inspection is, and always has been, essential for a competent tradesperson. Training such as this sharpens their skills and interest in inspecting each other's welds.

General performance enhancements have been felt across SA Water's welding personnel due to relevant training and development courses being made available through the WTIA's NDNP for welding personnel in the water industry.

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