COAL PREPARATION FIELD
PROMOTION TOUR 2014

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PETAN ENTERPRISES
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COAL PREP – TECHNOLOGY FOR NEW GENERATION CPPS

Your industry has spent $38.8 million since 1992 solving problems in coal preparation

NEW GENERATION DMC PLANT

- The new DMC handbook is now available through the ACPS; incorporating changes in operations and knowledge since the DSM edition 1954.
- Work by QCAT starting with the project “The Intelligent Plant” and augmented to plant ready status at New Acland CPP include new instruments, models and knowledge, delivering a higher level of real time information of plant status, thus allowing more precise operations control. This in turn will allow improved plant efficiency and a higher level of value adding capacity.
- A workshop on these subjects is being planned for early 2015; designed to demonstrate how the new generation plant can be incorporated into existing or new plants. It will include information from other areas of ACARP research as well as the QCAT research.

ACARP FUNDED WORK AT THE UNIVERSITY OF NEWCASTLE CONTINUES TO PRODUCE WORLD LEADING DEVELOPMENT IN FINES TREATMENT EQUIPMENT

Currently major projects in progress include:
- A full scale demonstration of the use of a Reflux Classifier to process coal up to 4mm topsize. A successful result in this endeavour will lead to the ability to significantly increase the capacity of plant modules, allowing savings in the capital cost of plant ($/tph).
- A plant pilot study of a totally new approach to flotation, which, if successful, will lead immediately to a full scale demonstration. The ensuing benefits to industry will be lower capital cost for flotation capacity ($/tph), and improved separation efficiency; which will give lower product ash at the same or better yield, and in some cases will make flotation viable where it currently is not.
- The improvement of Reflux Classifier operation under higher G force has progressed from laboratory scale to pilot scale and early results are confirming a breakthrough with this technology which again is indicating another major cost/efficiency improvement should be forthcoming.

ALTERNATIVE WASHABILITY ANALYSIS

For many years ACARP has been supporting research into developing methods for replacing the current organics used in washability analysis.

Proven methods are now available for measuring washability of coarse and fine coal:
- C18038 ZrO2 for Coarse Coal; developed at CSIRO, QCAT.
- C21046 Glycol Solutions in an RC for Fine Coal; developed at Newcastle University.

Further promising methods to reduce the time and cost of analysis are in advanced stages:
- C23042 Analysis from Small Topsize Samples; being developed at QCC & CSIRO, QCAT.
- C21050 Analysis using X-Ray Tomography; being developed at University of Queensland.

A guide to safe laboratory practice using the current chemicals has also been issued:
- C17045 OH&S Review of Use of Organic Heavy Liquids for Float/Sink Testing; developed at Steel River Testing.

IT’S YOUR MONEY

- Paid for by the Australian coal industry
- Projects selected and managed by the industry, e.g. plant managers and engineers
- Annual Budget of $17 million
- $2 million to coal preparation

GET MORE INFO

- Project reports downloadable from www.acarp.com.au
- E-Abstracts of project reports emailed on request
- Current project status reported quarterly

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THE COAL INDUSTRY’S RESEARCH PROGRAM