



Ammonium Nitrate Expansion

CSBP Engineering Reliability Manager
David Zacher

CSBP overview

- One of Australia's main suppliers of chemicals, fertilisers and associated services to the mining, industrial and agricultural sectors
- Operates a major industrial complex in Kwinana, as well as complementary facilities in regional Western Australia
- Operations in Victoria and Queensland
- A division of Wesfarmers Limited
- More than 780 employees

Ammonium nitrate

- CSBP produces ammonium nitrate in two forms:
 - ammonium nitrate solution
 - prilled explosive grade ammonium nitrate
- Ammonium nitrate solution is used in liquid fertiliser production
- Prilled ammonium nitrate is used in explosives by resources sector

Our previous ammonium nitrate facility

- Previous facility consisted of:
 - nitric acid plant
 - ammonium nitrate solution plant
 - ammonium nitrate prilling plant
 - storage, packaging and despatch facilities
- Producing on average
 - 187,000 tpa of nitric acid
 - 235,000 tpa of ammonium nitrate solution
 - 185,000 tpa of prilled ammonium nitrate
- Nitric acid and ammonium nitrate solution plants commissioned in 1996
- Prilling plant commissioned in 1968

The need to expand our facility

- CSBP is currently Western Australia's only ammonium nitrate producer
- Increasing demand for ammonium nitrate from WA mining industry
- Increasing demand for liquid fertiliser from agricultural sector

How the expansion unfolded

- 2004 August - feasibility study starts
- 2005 February to March - Public Environmental Review
- 2005 September - Ministerial approval secured
- 2005 November - Wesfarmers Board approves the project
- 2006 February - construction starts
- 2008 February - construction of nitric acid and ammonium nitrate plants completed
- 2008 July - prilling plant construction completed
- 2008 September - loading facility commissioned
- Currently in the final phase of prill plant production commissioning

An increased capacity: the new facility

- Our expanded ammonium nitrate facility consists of:
 - duplicate nitric acid plants with improved noise reduction
 - duplicate ammonium nitrate solution plants
 - new prilling plant with improved environmental performance
 - upgraded ammonium nitrate solution tanks
 - new prilled ammonium nitrate storage facility incorporating new security features
 - a state-of-the-art centralised control room
- Total combined production on average:
 - 374,000 tpa of nitric acid
 - 470,000 tpa of ammonium nitrate solution
 - 380,000 tpa of prilled ammonium nitrate



Project benefits

- More than 700 jobs created during height of construction
- Investment in local business via construction expenditure
- 10-20 ongoing plant production jobs
- Improved environmental performance

Improved environmental performance

- Reduced particulate emissions
 - State-of-the-art scrubbing system an integral part of the new prilling plant
 - Significantly reduces particulate emissions through the removal of ammonium nitrate particulates and vaporised ammonia from waste air discharge
- Noise reduction
 - Noise attenuation measures have been incorporated in both nitric acid plants
 - Predicted noise levels at Medina from CSBP site reduced from 31 to 29 dB(A)
 - CSBP no longer a 'significant contributor' to noise in residential areas
- Use of Kwinana Water Reclamation Plant water in cooling towers, offsetting groundwater use

Further information

- Any questions?
- Register your interest in:
 - 2008 Wesfarmers Sustainability Report (released November)
 - CSBP's Upfront newsletter
- Contact CSBP Corporate Communications:
corporate@csbp.com.au or 9411 8691