

Presentation to SIRF - 9 August 2006

Risk Management & Shutdown Planning



- Adelaide Brighton Limited
- Company Profile
- Shutdown Planning
 - History
 - Review
 - Process
 - Standards
- Risk Management
- Discussion / Questions



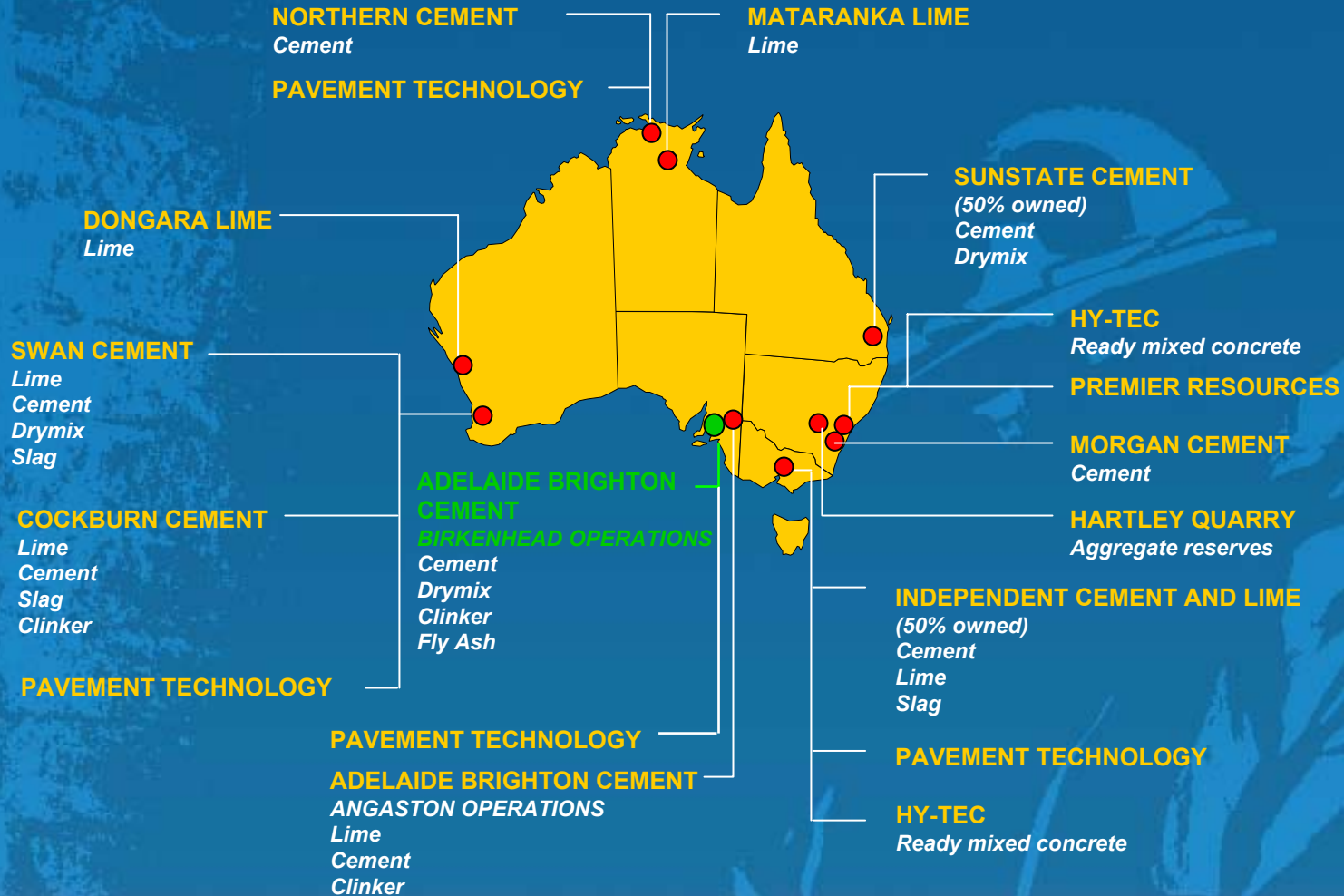
Overview of Australian Cement Market



- Total Australian cement market 7 Mt/a
- Total Australian lime market 1.8 Mt/a
- ABL produces - cement 2.65 Mt/a, total lime 1.0 Mt/a
- Bagged product < 15% of market
- Mature market growing at 1.6%/a
- Tyranny of distance, Major population and markets along the East coast but main manufacturing sites in SA and WA
- Recent acquisition of C&M Brick



ABL Operations



Birkenhead Works



- Modern, world-class plant
- Limestone shipped in dedicated vessel
- Single Kiln line, 1976 4-stage PH fitted with SLC in 1990
- Clinker output 1.2 Mt/a, potential to increase to 1.3 Mt/a
- Two cement mills
- 500 kt/a cement used in local market
- 510 kt/a cement shipped to Eastern states
- Excess clinker shipped to other ABL operations
- Drymix plant for grouts, renders etc





- Shutdown Disaster Of October 1997
 - Duration of shutdown longer than budgeted causing product shortfall and need to import clinker
 - Cost of shutdown significantly higher than budgeted resulting in profit shortfall
 - High level of community complaints
 - Poor post shutdown performance



Shutdown Planning - Review



- Management of 1997 shutdown reviewed by AON Risk Management to identify root cause of faults.
 - No formal review of shutdown plans
 - No cost control process
 - Adhoc co-ordination between group
 - No Performance measures for project and lead contractors



Shutdown Planning - Recommendations



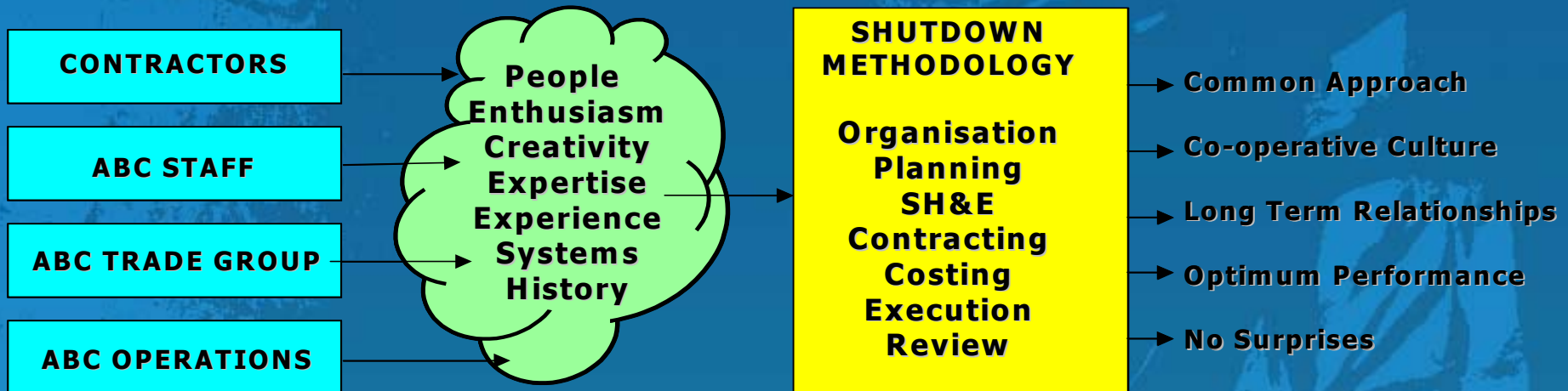
- Improvement initiatives recommended.
 - Define shutdown management process
 - Improve shutdown planning and scheduling
 - Integrate all shutdown activities
 - Develop formal commissioning process
 - Performance measures for project and lead contractors with risk sharing arrangements
 - Document all processes





The Method

Steps to create a model of excellence



BH-RWI-0732 Shutdown Organisational Structure



INTENT

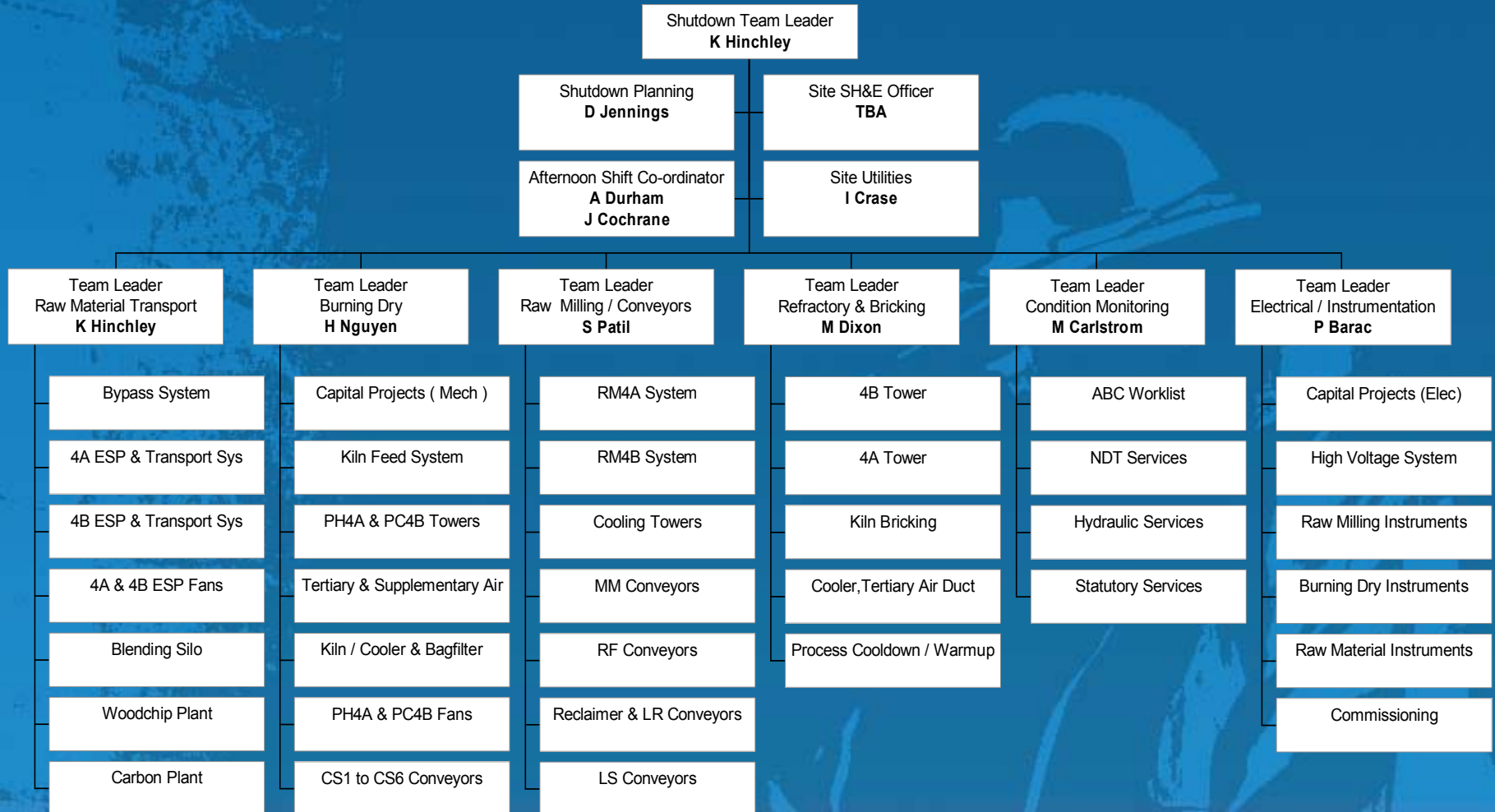
To define a project structure accountable for strategic business issues and execution of the shutdown plan.

KEY POINTS

- Steering Committee accountable for setting the Shutdown Policy and business objectives.
- Dedicated Team Leader accountable for implementing the policies
- Preparation Team accountable for planning and execution of the shutdown plan
- Single point accountability for personnel in the team
- Monthly feedback to the Steering Committee on progress and constraints



Shutdown Organisation Structure





INTENT

To define a process to ensure awareness and compliance with ABC SH&E Standards

KEY POINTS

- Dedicated SH&E representative responsible for compliance with ABC Procedures
- All contract companies fully briefed on relevant ABC Standards prior to the shutdown commencing.
- Lead contractors responsible for developing safety plan to ensure compliance with ABC Standards
- Performance standards set for contractors and overall for the shutdown
- Incentive scheme linked to SH&E performance.
- Daily audits by management team during shutdown





INTENT

To define a process develop the shutdown work scope, ensure all planning needs are considered and a project schedule developed.

KEY POINTS

- Dedicated planner responsible for planning and scheduling all shutdown tasks.
- MMS used to record all work orders for the shutdown with the project accounting module used to capture costs.
- Engineers and lead contractors responsible for developing work scope, procedures and draft schedule.
- Work scope freeze date set at least 30 days before shutdown start date after which authorization of work is by the management team
- Schedule includes capital work





INTENT

To define a process for managing contracts relating to shutdown activities

KEY POINTS

- Build relationship with select group of key contractors, selection not based on cheapest option.
- Nature of main contracts are based on a Total Target Cost.
- Contractor develops scope, cost estimate, safety plan and provides JSA for jobs
- Contractor develop schedule with ABC planner to ensure co-ordination across the whole site.
- Contractor responsible for co-ordination of external resources and supervision
- Contractor supplies all consumables. PPE and hire equipment





INTENT

To define a process for developing the shutdown budget and monitoring costs.

KEY POINTS

- Preliminary CER raised to cover planning process and allow procurement of parts.
- Early involvement of contractors in development of cost estimate
- Contractors provide planned 'S' curves for labour and cost..
- Contractors report progress daily in the form of percentage complete for each task along with 'S' curves for labour and cost.
- Contractor rewarded for coming under budget and penalised when over budget.
- Separate process defined for managing variations. ABC pay actual cost up to a maximum of 110% of estimate.





INTENT

To define a process to allocate work, monitor progress against the schedule and communicate with all parties..

KEY POINTS

- Pre Shutdown briefing with contractors to outline ABC expectations and communication plan.
- Three day window of work issued to contractors daily. Priority given to work on this schedule. Progress reported daily to the shutdown planner
- Commissioning undertaken by ABC team who are transferred onto shift
- Area Engineer responsible for completing Hand Over Certificate, Commissioning team complete Return To Service Certificate when sequence testing complete.



BH-RWI-0738 Shutdown Project Review



INTENT

To define a process to review performance and develop improvement plans.

KEY POINTS

- Contractor review completed with a month of shutdown completion
- Lead contractors to provide a written report
- ABC review to be completed within two months of shutdown completion
- Final report written and circulated to the Shutdown Steering Committee detailing recommendations for improvement.



Almost Certain
>90% chance

Likely
>30%

Possible
>10%

Unlikely
<10%

Rare
<1%

Extremely Rare
1 in 1000

A

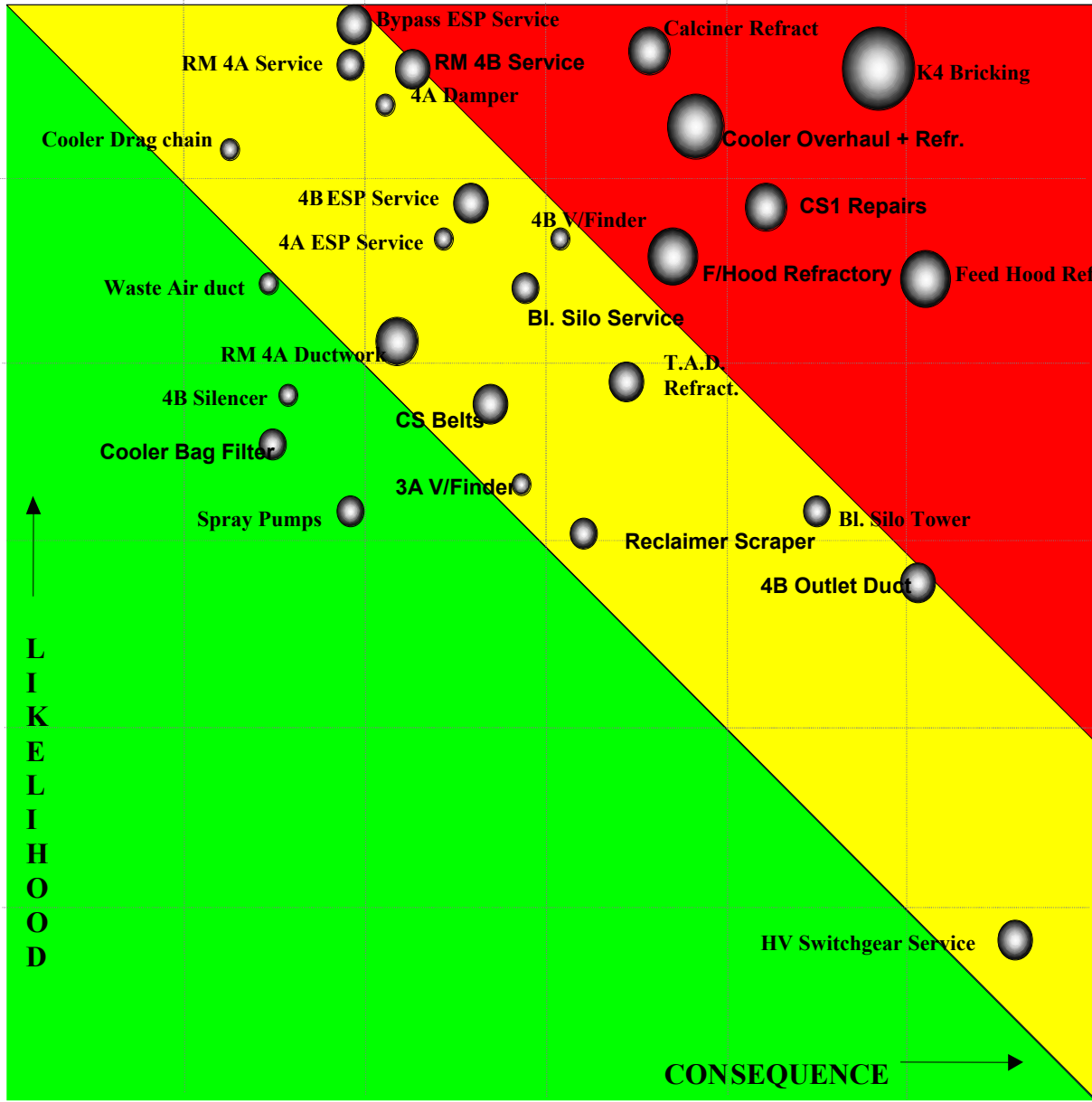
B

C

D

E

F



1 2 3 4 5 6

\$0 to \$50k \$50k to \$150k \$150k to \$750k \$750k to \$1,500k \$1,500k to \$3,000k + \$3,000k

Birkenhead Kiln Shutdown

Key: Estimated Effort Required to Reduce Risk to a Low Risk Level

- \$50k
- \$125k
- \$250k
- \$500k
- \$750k
- \$1,000k
- \$1,500k
- \$2,000k

Risk Management & Shutdown Planning



- Questions?

