

9. Major Commissioning Phase Activities

Commissioning/operation is anticipated to commence approximately 26 months after approval of the project and following a decision to proceed from the Gunns' Gunns Board. The commissioning phase is provisional on all construction works having been completed within the specified timeframes and meeting all required standards.

Commissioning starts at the first production of pulp off the pulp machine and includes the following phases:

- ▶ Start-up;
- ▶ Test-run;
- ▶ Taking over;
- ▶ Performance test; and
- ▶ Ramp-up of production to the annual design capacity.

9.1 Start-Up

Start-up is the first full 24 hours production of dried pulp.

9.2 Test Runs and Take-Over

During test runs, all equipment will be observed with regard to noise, vibrations, temperature, leakage and anything out of the ordinary. Any deviations will be reported. Levels of emitted noise will be monitored and checked against the sound power levels used for noise predictions.

After successful start-up and an accepted production test, Gunns will take over the equipment. Gunns will then issue a "Certificate of Taking-over (Provisional Acceptance)", which will be the indisputable document signifying the beginning of the guarantee period of the equipment.

From the Taking-over (Provisional Acceptance) date, Gunns' personnel are responsible for the running of the plant.

This is anticipated to occur within 6 months of start-up.

9.3 Performance Test

The performance test period is to determine compliance with performance guarantees in terms of quality, capacity, consumption and emissions. The performance test will occur within 12 months of Taking-over. A "Certificate of Performance Test Acceptance (Final Acceptance)" will be issued following this period (Gunns pers comms).

9.4 Ramp-Up

The production ramp-up to design production of 820,000 ADt/a will be:

- ▶ First 12 months at least 75 % of annual design;
- ▶ Second 12 months at least 90 % of design; and
- ▶ Third 12 months at least 100 % of design.

The pulp mill capacity will expand to over 1 million ADt/a once it is operating on 100 % plantation wood and will eventually achieve up to 1.1 million ADt/a, with gradual operational improvements and minor optimisation.

9.5 Preparation for Operations

Preparations for operations will have commenced during the pre-engineering phase and will continue while awaiting approval and thereafter.

9.6 Human Resources and Organisation

Human Resources

A shift-working scheme is proposed to allow twenty-four hour operation of the pulp mill. The shift-working scheme will consist of three shifts completed by four teams.

The wharf activities will increase the demand for labour when ships are docked. The proposed preliminary pulp mill organisation includes 292 employees. These personnel are estimated to be needed for pulp mill operations after the start-up period. In the beginning, a start-up crew of expatriates will be required.

The aim is to use third-party services whenever it is economically justified.

Landfill Personnel

Approximately 10 truck loads per day, each carrying approximately 20 m³ per load, will be loaded at the pulp mill, carted to the landfill, unloaded at the landfill and spread across the open operating cell (10 deliveries per day x 20 m³ x 250 workdays/year = 50,000 m³ per year).

There will not be a permanent presence on site. Landfill operators will be on site on an as-required basis. The staffing levels at any given time for the facility will be 2 people. One person will be the supervisor and direct operations. The other is likely to be a qualified plant machinery operator.

There will be a small crib room/office and workshop opened and used as needed.

Maintenance, Pulp Mill Services

The need to contract pulp mill services (eg maintenance services) will continue to be discussed with potential service providers after the project has been approved.

Final selection of the organisational model and possible maintenance service partners will be done after selection of main machinery suppliers.

Material and Service Contract Management

To ensure the supply of materials and services for the commissioning and initial operation phase, scheduled delivery contracts will be established for:

- ▶ Raw materials and chemicals;
- ▶ Production consumables;
- ▶ Maintenance materials; and
- ▶ Maintenance and housekeeping services.

9.7 Hours of Operation

The hours of operation are anticipated to be 24 hours a day, 7 days a week, year round (refer to section 6.11). There will no variation in hours of operation between summer and winter.