

SOUTH EAST FIBRE EXPORTS PTY LTD
PILOT WOOD PELLET PLANT
STATEMENT OF ENVIRONMENTAL EFFECTS

1. INTRODUCTION

1.1 History

South East Fibre Exports Pty. Ltd. (hereinafter referred to as SEFE), is a joint venture between Nippon Paper Industries Co. Ltd and Itochu Corporation. The Company is a major exporter of wood products produced in the Bega Valley Shire. It is also a significant employer of labour and revenue earner for the Shire.

SEFE is currently operating a woodchip mill near Eden, New South Wales, and is the proponent for the proposed pilot wood pellet plant. The wood chipping operation is subject to Licence No. 1482 issued by the NSW DECCW and SEFE is committed to abiding by the conditions of the Licence and relevant regulations such as Clean Air Regulations 1997 and Clean Waters Regulations 1972.

SEFE has achieved and maintains accreditation to ISO 14001: Environmental Management System, Australian Forestry and Chain of Custody Standards.

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 EDEN NSW 2551

Street Address: Jews Head,
 Edrom Road
 EDEN NSW 2551

1.2 The Proponent

SEFE's woodchip mill is located at Munganno Point on the southern shore of Twofold Bay. Twofold Bay sits in the extreme south-east corner of NSW and is approximately 450 km south of Sydney. The town of Eden is at the head of the large (3,100 ha) bay, which is some 4.5 km wide and 36 metres deep at its entrance. The 3,000 plus residents of the area are concentrated on the northern side of Twofold Bay around Eden.

Since establishing in Eden in 1968 (as Harris-Daishowa (Australia) Pty. Ltd.), SEFE has invested in excess of \$68 million and owns and manages a plantation estate of 4,300 ha.

SEFE has been exporting woodchips since 1971 with a total export value in excess of \$2 billion. Up until 2008 all exports were of hardwood chips. In 2008 commercial shipments of pine chips commenced. SEFE's direct employment is 77 and a further 300 persons are employed in the direct supply chain. and in forest management.

A similar number of indirect jobs attach to the SEFE operation. SEFE's markets are integral to the financial viability of 11 regional sawmills and will also be important to the large softwood sawmill planned for Bombala.

1.3 Project Outline and Objectives

The proposal involves installation of a pilot wood pellet plant on SEFE's existing mill site with the objectives of gaining first-hand operating knowledge and experience which can be utilised for examining the feasibility of constructing a full scale pellet production mill on SEFE's site.

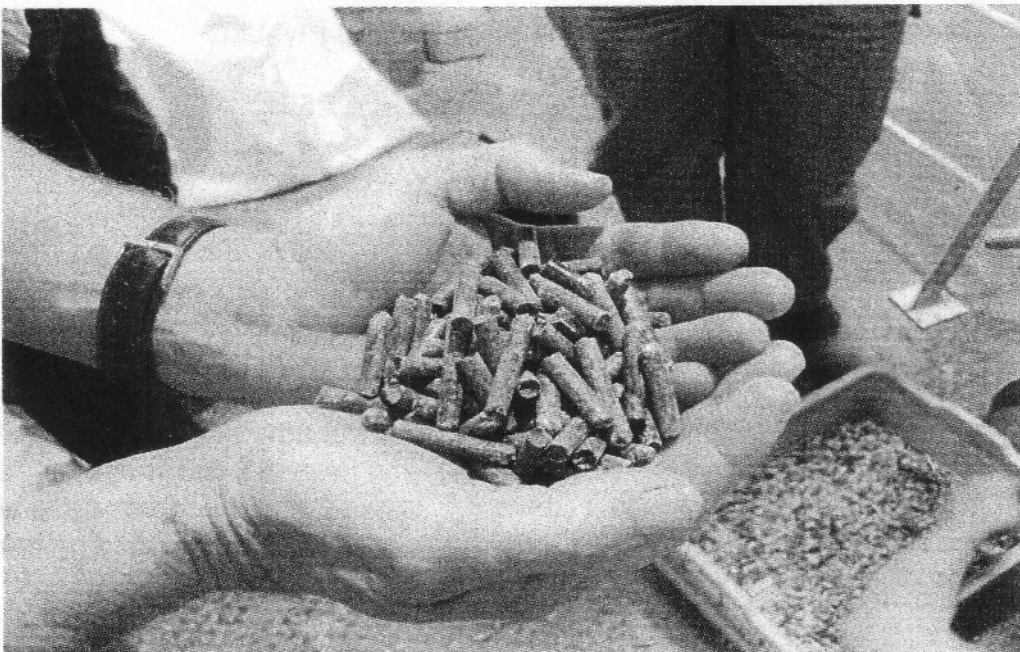
Wood pellets can be marketed for use in domestic space heaters, commercial boilers for hospitals, schools, etc., used for animal bedding, mushroom compost, animal litter, spill kits and a wide range

of other uses. The wood pellet market in Australia is in its infancy, but has excellent growth prospects when markets in other developed countries are considered. In 2010 over 12 million tonnes of wood pellets were traded internationally.

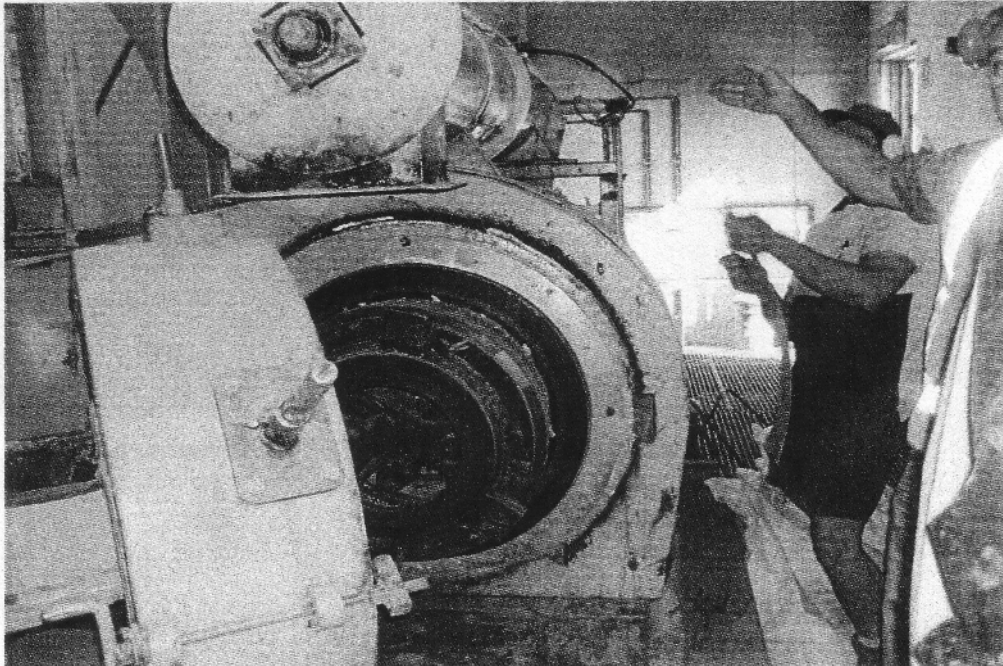
Wood pellet factories are often attached to wood-fired power plants, such as the SEFE proposal currently being reviewed by the NSW Department of Planning, as the waste heat can be used to dry woody feedstock. These facilities are commonly referred to as Combined Heat and Power (CHP) plants.

The pilot pellet plant will comprise:

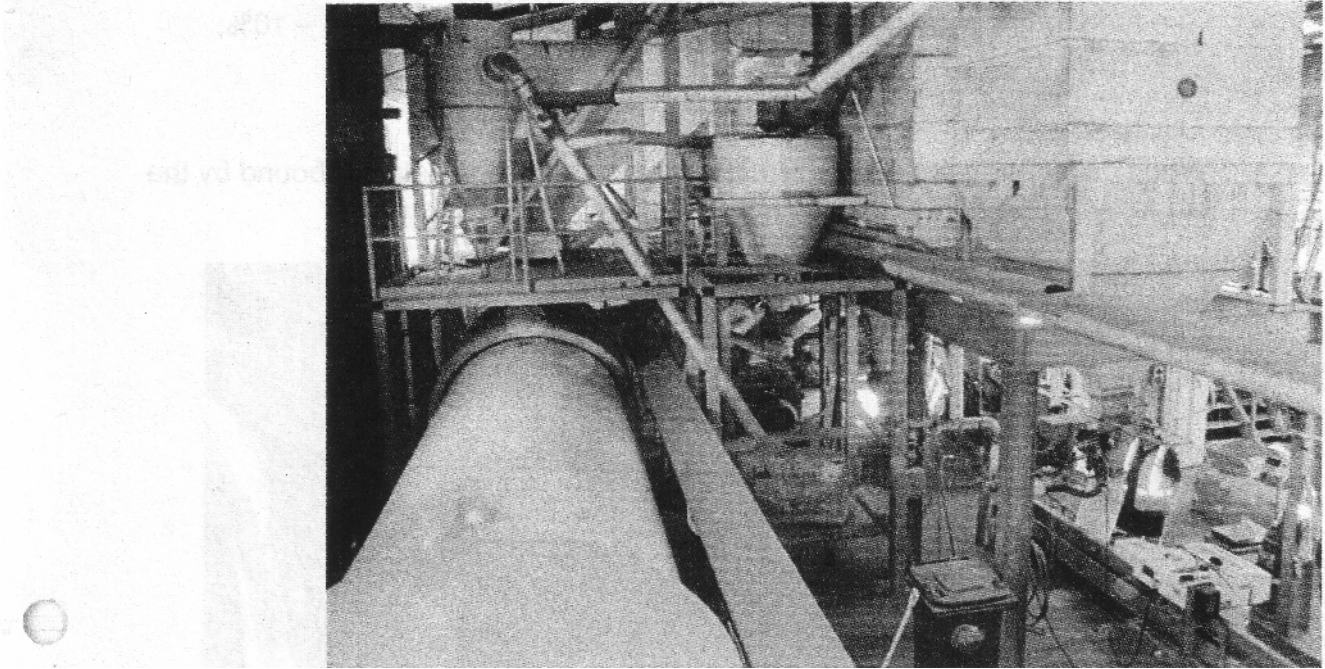
- Raw material unloading area which would be inside the building enclosure, under cover to eliminate fugitive wood dust emissions;
- Belt conveyors and hoppers to transfer raw materials to the drier;



- Gas-fired rotary drum drier to reduce wood moisture to around 8 - 10%;
- Hammer mill to refine and equalize wood particle size;
- Wood pellet mill to compress wood into pellets. The pellets are bound by the naturally occurring wood lignin, and no chemicals are required.
- Cooler, to remove the heat generated during the compression of the pellets;
- Vibrating screen to separate pellets from loose material;
- Bagging system, including storage bins, bagging and sealing machine.



Wood pellet mill located at Woodburn Pellet Plant



View of full scale wood pellet plant located at Woodburn on the NSW North Coast.

Specified plant output is 250 kg per hour. After an initial period of commissioning and debugging the plant, SEFE intends to operate the plant on two x eight hour shifts from 3.00pm through to 7.00am to take advantage of off-peak power and to address other long-standing mill manning inefficiencies.

Raw material feed for the plant would be sourced from hardwood and softwood sawmills located within a 100 km radius of SEFE's mill, alternatively, fines from SEFE's own process would be suitable, but would require more drying energy to reach target moisture content.

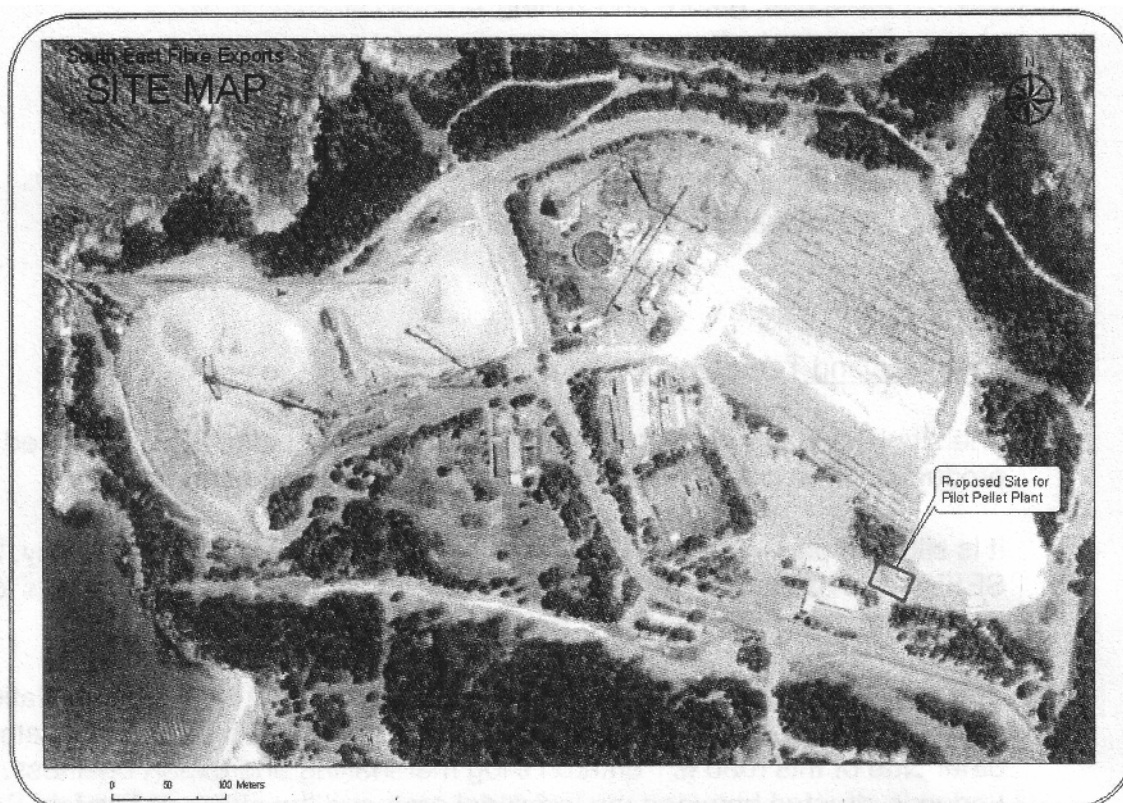
The pellet processing plant would be enclosed within a steel-framed, color bond clad shed, approximately 16 m by 24 m plan dimensions by 6 m high.

1.3.1 Site Infrastructure

The new facility will make use of existing power supply systems. No additional high voltage works or transformers are required.

The existing fire fighting water system will be used to provide fire protection. This system consists of a gravity feed underground hydrant system, fitted with electric and diesel powered booster pumps.

Storm-water run-off from the pellet plant shed will be piped into the mill's storm-water collection system.



1.3.2 Timeframe for Development

The plant can be built, delivered, installed and commissioned within seven months of an order being placed with the supplier.

1.4 Approvals and the Role of this Document

This Statement of Environmental Effects (SEE) has been prepared to support a Development Application submitted by SEFE to Bega Valley Shire Council.

The SEE provides information on the present environment in which the proposed pellet plant will be built, including such matters as:

- Land use, tenure and zoning
- The atmospheric environment
- Noise
- Transportation
- Heritage and Visual issues;
- Solid Waste
- Hazards and overall monitoring.

2. PLANNING ISSUES

2.1 Land Use and Tenure

The site is owned by South East Fibre Exports Pty, Ltd (SEFE) and used for production of woodchips which are exported to overseas markets.

It is situated on Munganno Point on the Southern Shore of Twofold Bay, NSW. SEFE owns three titles at Munganno Point. The SEFE woodchip mill is located on the title described as L3 DP 529447.

The land adjacent to SEFE's southern boundary is part of Ben Boyd National park. William Alien Drive bounds the south-western boundary and located on the other side of this road is Pentarch's log marshalling and export business. Edrom Lodge is situated between the industrial area and the shore of Twofold Bay.

2.2 Zoning

SEFE's mill site is located within the Bega Valley Shire and is zoned 1 (A) Rural General Zone under Part 2 of the Bega Valley LEP2002. The objectives of Zone 1 are:

- (a) To encourage continued growth in the area's rural economic base;
- (b) To encourage other forms of development, including tourism, that are compatible with agricultural activities and do not create undesirable environmental and cultural impacts;
- (c) To protect and conserve the productive potential of prime crop and pasture land;
- (d) To maintain the scenic amenity and landscape quality of the area;
- (e) To promote the protection, and the preservation and enhancement, of natural ecological systems and processes;
- (f) To provide proper and co-ordinated use and protection of rivers, riparian corridors and water catchment areas.

- (g) To promote the economic provision of services compatible with the nature and intensity of development and character of the area;
- (h) To ensure that development and management of the land has minimal impact on water quality and environmental flows of receiving waters;
- (i) To maintain significant features of natural and cultural heritage.

2.3 Compatibility with Planning Provisions

The Bega Valley LEP 2002, under the Environmental Planning and Assessment Act 1979, requires a range of developments to obtain development consent prior to commencing development in the Rural W Zone, including sawmills and timber yards.

Given the existing nature of the woodchip production activity and the objectives of Rural W Zone, the proposed development is compatible with the planning provisions applicable to the site.

3. EXISTING ENVIRONMENT, POTENTIAL IMPACTS AND MITIGATION MEASURES

The existing environment of the site is described below and then considered with respect to the potential impacts during both construction and operation of the proposed development.

3.1 Terrestrial Environment

SEFE's Mill is located at Munganno Point, on the Southern shore of Twofold Bay.

The elevation of the mill is about 35 metres above sea level, and the surrounding area generally increases in height from east to west and with distance from the coast. The site itself is on gently sloping land with a ground slope of around 5%.

Most of the Mill site is moderately to highly disturbed and aerial photography from the mid-1 970's indicate that the site has previously been cleared of all vegetation.

The site has been operational since the late 1960's, resulting in the cumulative impacts of continued and long-term disturbance in the form of access tracks, fire control and protection activities, landscaping and artificial noise, dust and light impacts. In addition, the presence of a security fence effectively isolates the site from the surrounding bush land.

3.2 Atmospheric Environment

Summer winds are primarily from the north-east and winter winds are from the south-west.

There is no ambient air quality data for the South Eastern Region; however, ambient levels of pollutants are expected to be low given its proximity to the coast, its low population and the lack of significant industry in the region. Air quality is expected to be good with ambient levels of pollutants well below guideline levels.

3.2.1 Potential Air Quality Impacts

Fugitive particulate emissions from the proposed development may arise from the following sources:

- Construction operations;
- Unloading of raw materials;

- From the air discharge point of the three cyclones

Construction Phase

Any dust emissions from the construction phase are expected to arise during excavation of soil for the construction of a slab concrete floor. The site selected is mostly close to level so that excavation will be minimal and will be restricted primarily to removal of unsuitable material.

Unloading of Raw Materials

Deliveries of raw materials will be via trucks hauling enclosed trailers fitted with walking floor single dischargers. The trucks will reverse into an enclosed raw material storage bay fitted at the entrance with interleaving flexible strip curtains.

Cyclones

The three cyclones to be installed in the plant are all designed to be highly efficient and will emit less than the applicable allowable air emission level of 100 Mg/m³. A regular schedule for cyclone maintenance will ensure their efficient working condition.

3.3 Noise

3.3.1 Ambient Noise

The existing Mill includes log receival and storage, debarking, chipping and an associated process plant, and a wharf/shiploading facility for the export of woodchips. Normal operating hours are 7.00am to 1 1.00pm Monday to Friday; very occasionally the Mill operates for a single shift on a Saturday.

Over the last four years, close to 1 million tonnes of logs have been processed at the mill annually. All timber received by the site is delivered by truck between 7.00am and 1 0.00pm Monday to Friday, and occasionally between 7.00am and 2.30pm on Saturday.

Shiploading is undertaken in three-day campaigns around the clock. During loading, two chip dozers are deployed to reclaim chips on the sites' chip stacks. This activity occurs around 22 times per year.

Approximately 150 heavy vehicles currently access the site daily. In addition to log transport, SEFE sells mulch to markets in the metropolitan areas of Sydney and Canberra. Typically 900 truckloads of mulch are sold each year.

Because the pellet plant will be housed within a fully sheet steel-clad enclosure, and because all plant will generate non-impulsive, low noise levels, it is expected that the plant will not exceed noise goals at any receptor, and any associated noise is expected to be indistinguishable from normal background noise.

As construction activities would be limited to daylight hours, Monday to Friday, construction noise would not exceed any noise limits at any residential location.

The increase in traffic noise attributable to the development arising from an additional 1 - 2 heavy truck movements per week would be negligible.

3.4 Transportation

Currently all timber required by the SEFE Woodchip Mill is delivered by truck. Truck deliveries are between 7.00am and 1 0.00pm Monday to Friday. There are approximately 300 truck movements (150 in and 150 out) to the site each week day.

Access to the SEFE Mill is via Princes Highway and Edrom Road. Both routes have sealed surfaces that are in good condition.

3.4.1 Potential Impacts

The development will increase the movement of heavy vehicles by around four movements per week, which is insignificant in the current context.

3.4.2 Mitigation Measures

The existing rate of truck movements will increase insignificantly, with no measureable adverse impacts; therefore no mitigation measures are required.

4. CULTURAL AND HERITAGE ISSUES

4.1 Existing Environment

Aboriginal and historic site surveys were recently conducted within the Mill site in relation to another planned development. The results of those surveys indicate that there are no cultural and historic sites of any significance within the Mill site. If they ever existed, it is unlikely that significant features remain intact due to the highly modified nature of the site.

4.2 Potential Impacts

No known archaeological features or sites exist within the mill site therefore there are no possible impacts.

4.3 Mitigation Measures

No mitigation or preservation measures need to be implemented due to the lack of archaeological features at this site.

5. VISUAL

5.1 Existing Environment

The SEFE Woodchip Mill at Munganno Point comprises a Chipmill, fines stockpile, coarse wood waste stockpile, incinerator, water treatment plant, conveyor systems, three woodchip stockpiles and wharf and shiploading facilities. The operation extends along the coastline for nearly 700 metres and is partially screened by vegetation along the coastline to the north and west of the site. The site is surrounded by vegetation to the south and east.

The woodchip stockpile forms a strong visual contrast with the generally natural character of the southern shores of Twofold Bay and the wharf and shiploading structures contrast in shape and colour with the adjoining natural coastline.

5.2 Potential Impacts

The proposed pellet plant will be housed within a sheet steel-clad building approximately 16m x 24m plan dimensions and 6 m high, located between the southern end of the log stockpile and Palmcrest fuel facility, and will not be visible from any view points beyond the site boundary, therefore the visual impact is not considered to be a significant issue.

5.3 Mitigation Measures

No mitigation measures are considered necessary, as the proposed development will not be visible from any view points beyond the site boundary.

6. SOLID WASTE

6.1 Existing Environment

The existing solid waste stream from the SEFE Mill includes the following:

- Dewatered solid waste from the water treatment plant and leachate collection areas are disposed of to landfill within the Mill site;
- Waste wood oversize and fines stockpiles located to the north of the mill area;
- Workshop waste;
- General refuse and office waste.

The waste wood oversize stockpile is currently disposed of in the incinerator onsite. The incinerator is fired up around three times per year and operates 24 hours per day for an average of three days.

Screen fines are sold to external markets for landscaping and horticultural purposes. Any surplus fines are disposed of by burning in the incinerator.

Workshop wastes are segregated with cardboard waste and scrap metals being recycled, used oil filters being collected for disposal by the local waste contractor, and other wastes such as cleaning rags being collected along with the office and general refuse by the local waste collection contractor for disposal at the Eden Municipal tip.

6.2 Potential Impacts

Any general refuse originating at the pellet plant will be disposed through existing channels.

All raw materials supplied to the plant are expected to be converted to saleable wood pellets. Pellets exiting the cooler will be screened to remove dust and other particles which have not compressed into saleable pellets, but this material will be conveyed back into the process up stream of the pellet press.

6.3 Mitigation Measures

The proposed development will not create any significant additional new types of solid waste streams and those waste streams generated are well able to be absorbed into existing methods and procedures. Thus no mitigation measures are required for the management of solid waste.

7. HAZARD ISSUES

7.1 Existing Environment

Due to the isolated nature of the site, a number of above and underground fuel tanks are installed. These include two underground petrol tanks of 25,000 litres each and five above ground diesel tanks with an aggregate capacity of 305,000 litres. Other than the fuel, a 2,275 litre propane tank is installed to supply gas for cooking meals in the mill canteen and other, limited quantities of hazardous materials such as oil, grease, paint, etc., are stored and use onsite as part of the operation of the SEFE Mill.

Preventative measures are practiced in case of a fire or hazardous material spill.

7.2 Potential Impacts

The temporary storage and processing of large quantities of wood materials represents a significant potential source of fuel in the event of fire. Other than electrical fires caused by the malfunction of electrical plant, the only fires the plant has experienced in recent times have involved spontaneous combustion resulting in a smoldering fire the chip fines waste stockpile, however, diligence in this matter is considered important due to the ease with which fire can take hold in this situation.

There is also potential risk of leakage of hazardous products into the environment that can cause significant short and long-term contamination of soils, groundwater and/or indirect contamination of surface waters if released untreated.

7.3 Mitigation Measures

To reduce the risk of release to the environment or the potential for fire, all hazardous substances are stored with signage and fire control measures according to the Dangerous Goods Act and Regulations and the Australian Standards (AS01940).

Material Safety Data Sheets are displayed where hazardous materials are stored and appropriate Occupational Health and Safety equipment provided to meet appropriate Standards and Regulatory requirements.

Bunds are inspected on a daily basis. Any spilt material is promptly mopped up or treated with absorbent material. Any leaks are promptly repaired.

An Emergency Response Plan details procedures to be undertaken during an emergency and training of staff is undertaken to ensure all are familiar with the plan and responsibilities.

An inventory is kept of any hazardous materials stored and handled onsite, including the location of storage, their quantities and their Material Safety Data Sheets.

Any fluids released during machinery maintenance operations are captured for reuse or appropriate disposal. Waste lubricating oils are collected in a bunded tank and held awaiting pick up for recycling.

7.4 Fire Risk

Stockpiles of wood materials represent a significant source of fuel in the event of fire.

Fire control measures include:

- An underground fire main to provide water for fire-fighting in the event of a fire at the Mill;

- Provision of a buffer zone between the Mill and surrounding vegetation to mitigate the consequences of a bush fire;
- Availability of Company fire tender;
- Emergency Response Plan;
- Routine fire training for Mill personnel;
- Routine housekeeping inspections, with particular attention paid to inappropriate accumulations of combustible materials

8. **MONITORING. AND REPORTING**

Any significant malfunctions or spillages to the environment are required to be reported to the EPA, with contaminant capture and remedial measures implemented as necessary.

8.1 Monitoring During Construction

The presence of dust from excavation and vehicular movements will be visually monitored, with water suppression used to dampen affected areas as required.

8.2 Monitoring During Operation

The pellet plant development will be incorporated into the Mill's existing monitoring and compliance programmes:

- Routine housekeeping checks will monitor for the presence of combustible dust accumulations in the plant;
- Dust collection equipment will be checked on a regular basis to ensure it is operating effectively;
- If noise-related adverse impacts from the new facility are identified, noise monitoring will be undertaken;
- Noise suppression measures will be applied as required.

9. **SOCIAL AND ECONOMIC**

9.1 Potential Impacts

The development will have minor but specific positive economic and social impacts on a local scale.

The pellet plant development will involve an initial investment of \$440,000.00, a proportion of which will be expended locally in terms of construction material and installation labour. The development will provide ongoing employment opportunities for two operators.

It is planned to sell a portion of the pilot plant's output to a local distributor to fire wood pellet heaters in the local region.

Commercial application of wood pellet firing , such as boilers and central heating, is also a distinct possibility.

9.2 Community Perception of the Proposal'

The development should have a positive economic and social impact on a local scale, with the provision of employment outlined above.

10. **CONCLUSIONS**

The proposed pellet plant development at the SEFE Mill is compatible with existing planning and site use. The construction and operation of this development should not result in any significant adverse impacts on the environment. As a precaution, the proponent is committed to a range of mitigation measures.