

About Regain

Regain is Hunter-based mineral trading and processing company that focuses on mineral products manufactures from aluminium smelter by-products.

The company has worked with a number of aluminium smelters in Australia to recycle minerals from a range of smelter waste products. Products produced include fuel, fluxes and various mineral blends that are used in the manufacture of cement, bricks and tiles.

Planning Process

The application will be made under part 3A of the Environmental Planning and Assessment Act.

As part of the process, Regain, together with Tomago Aluminium, will be consulting with the community, Council and relevant agencies to prepare the Environmental Assessment (EA). The EA will then go on exhibition for public comment for a minimum of 30 days.

FOR FURTHER INFORMATION ON THE PLANNING PROCESS VISIT WWW.PLANNING.NSW.GOV.AU

Spent Potliner (SPL) Processing Plant

TOMAGO ALUMINIUM SMELTER
TOMAGO

Proposed Processing Plant

If approved, the SPL processing plant and amenities will be located in two existing buildings on the Tomago Aluminium site that are currently used for the storage of SPL.

The proposed plant will include:

- Materials preparation - including pot delining and SPL crushing, sizing, grinding and storage facilities;
- SPL treatment - including a rotary kiln and water reaction mixer; and
- Product plant - including blending, drying and final product crushing and storage facilities.

All stages of the plant would be enclosed with four independent dust extraction and collection points fitted to filter air.

For further information on the project please contact:

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Regain Services Pty Ltd, together with Tomago Aluminium, has made an application to the New South Wales Department of Planning to install and operate a full-scale Spent Potliner (SPL) processing plant on the Tomago Aluminium smelter site at Tomago.

Since 2002 Regain has operated a demonstration plant at Tomago Aluminium to trial the processing of SPL material to produce marketable products used in the cement and brick industries.

The demonstration plant has the capacity to process up to 12,000 tonnes of SPL per year, sufficient to meet current SPL generation rates, but unable to process the SPL currently stored on the Tomago site.

A full-scale plant, capable of processing 15,000 tonnes of SPL per year, will enable stockpiles of SPL to be reduced over time.

What is SPL?

The reduction of alumina to aluminium is performed in large electrolytic cells known as pots. These pots (collectively referred to as potlining) are lined with refractory materials with an inner carbon cathode shell.

Potlining has a life cycle of six to seven years, over which time it becomes contaminated with a range of materials.

The deteriorated potlining, known as SPL, is regularly replaced as part of the periodic individual rebuilding of the pots.

As a result of contamination SPL is considered to be a Hazardous Waste material.

The Regain SPL Treatment Process

The process developed by Regain to treat the SPL occurs in three stages:

1. Preparation of the waste
2. Heat treatment combined with exposure to air and water, and
3. Grinding and blending of the treated material to form new mineral products.

The key benefits of the treatment process are:

- 100% beneficial use of smelter mineral & metal by-products, with no unwanted residue
- A significantly positive effect on the environment
- Responsible and sustainable management of by-products.