

SPL Processing Facility at Tomago Aluminium

Operational Environmental Management Plan

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Executive Summary

Background

Regain Services Pty Ltd (Regain) operates a Spent Potlining (SPL) Processing Facility at the Tomago Aluminium Smelter in the NSW Hunter Valley region. The facility is located within the boundaries of the Tomago Smelter. The facility processes up to 60,000 tonnes per year of SPL for recycling into products used in cement manufacture.

This Operational Environmental Management Plan (OEMP) enables and supports operation of the facility such that:

- There is no adverse impact on the environment from operation of the SPL Processing Facility
- There is no adverse impact on the local community
- The facility is operated in a manner that meets the operating requirements of the Tomago Aluminium Smelter.

A key objective of this OEMP is to maintain compliance with all relevant laws and regulations. The SPL Processing Facility operates under the following regulatory approval and licences:

1. NSW Department of Planning, Industry and Environment (DPIE) Major Project Approval MP06_0050 as modified (MOD 2) on 22 August 2019 (MP06_0050 MOD 2).
2. NSW EPA Environment Protection Licence No. 13269.
3. NSW EPA Environmentally Hazardous Chemicals Act Licence No. 88.

Overview of the SPL Processing Facility Environmental Management System

This OEMP is structured on and administered as part of the Regain Management System which is an integrated Safety, Health, Environment, Quality and Risk Management System. This system is accredited to:

- AS/NZS ISO 14001:2015 Environmental management systems standard
- AS/NZS ISO 45001:2018 Occupational health and safety management systems standard
- AS/NZS ISO 9001:2015 Quality management systems standard.

The RMS processes provide a continuous improvement framework. In addition to the ongoing system of identification, reporting, investigation, and formulation of preventive or corrective action set out therein, there are processes for frequent operational performance review, audit and longer-term management review.

Purpose and Scope of this Document

The purpose of this document is to describe the OEMP and how it is used to achieve the objectives of no adverse environmental impact and compliance with regulatory requirements.

This document acts as a primary reference for Regain personnel and certain stakeholders who may have an interest in environmental management of the SPL Processing Facility including:

- Regulatory authorities that may have requirements for review and or approval of the OEMP
- Authorised Tomago Aluminium Company Pty Ltd personnel
- Auditors engaged to review and audit of compliance with the OEMP and its effectiveness

This OEMP has been prepared in line with Regain's practice of providing a distinct plan to cover a specific area of the enterprise that is, at the same time, both significant in respect of its objectives and focused on a set of related objectives and requirements. It sets out the activities required for effective environmental management and how the Regain organisation addresses and coordinates these activities.

Certain Regain Management System documents are included as attachments to provide immediately accessible information such that a reader may gain an understanding of the OEMP without having to necessarily refer to other documents.

1. Introduction

1.1. Context

The SPL Processing Facility is located on the site of the Tomago Aluminium Smelter (Tomago Smelter) operated by Tomago Aluminium Company Pty Ltd (TAC). The smelter is located on Tomago Road approximately 25 kilometres by road north west of Newcastle, NSW.

The SPL Processing Facility is an approximately 150 metre by 50 metre area incorporating two buildings (Shed 5 and Shed 6) and a process plant located in the area between the buildings. The surrounding land is within the Tomago Smelter site. Figure 1 shows the site for the SPL Processing Facility in the context of surrounding land. All surrounding land, facilities and activities are associated with the Tomago Smelter.

A Location map and a Site Layout Drawing for the SPL Facility are shown in Appendices A and B.



Figure 1 SPL Processing Facility Location

The facility has operated at a nominal 20,000 tonnes of SPL annual processing capacity under Project Approval MP 06_0050 issued on 7 August 2009 by NSW Department of Planning, Industry and Environment (DPIE) and Environmental Protection Licence (EPL) 13269 issued under the Protection of the Environment Operations Act 1997 (POEO Act).

A market need for expanded SPL recycling capacity in Australia has been identified. AECOM were engaged to conduct an Environmental Assessment. An Environmental Assessment - Capacity Increase at the Regain Spent Potlining Facility, Tomago document was finalised on 13 November 2018.

A modification to the Project Approval was approved on 22 August 2019 (MP 06_0050 MOD 2) for the increase in processing capacity from 20,000 tonnes per annum (tpa) of SPL to 60,000 tpa of SPL, and for the installation and operation of an additional thermal treatment plant and ancillary elements.

The facility is approved to operate on all days of the year and at any time.

Construction activities may only be undertaken between:

- 7am and 6pm Monday-Friday;
- 8am to 1pm Saturdays;
- At all other times provided that the activities are not audible at any residence beyond the boundary of the site.

1.2. SPL Facility Activities, Products and Services

Aluminium metal is produced in electrolytic cells known as pots. During the aluminium production process, the lining of the pots become contaminated with materials such as alumina, aluminium, calcium, fluoride compounds and sodium. The contaminated potlining, known as spent potlining (SPL) is regularly removed as part of the periodic rebuilding of the pots. SPL is classified as a Dangerous Good and an Environmentally Hazardous Waste. SPL requires careful handling and disposal in accordance with regulatory requirements.

SPL is delivered to the SPL Processing Facility from the Tomago Smelter directly from the SPL Deline Facility and from other smelters by road transport. Road transport is conducted under NSW Environment Protection Licence no 20976 held by Regain. The SPL is processed to eliminate the cyanide and flammable gas hazards.

The resultant material is used to manufacture HiCAL products which are used as additives to reduce energy consumption and greenhouse gas emission in the manufacture of cement. The transformation of aluminium smelter waste into products is licenced under Environmentally Hazardous Chemicals Act Licence No. 88 issued under the *Environmentally Hazardous Chemical Act 1985*.

1.3. Objectives of Operations Environmental Management Plan

The objectives of implementing this Operations Environmental Management Plan (OEMP) are:

- There is no adverse impact on the environment from operation of the SPL Processing Facility
- The local community is not adversely affected
- The SPL Processing Facility operates in compliance with government approvals, licences and all relevant laws and regulation.
- The facility is operated in a manner that meets the requirements of Tomago Aluminium Smelter, as agreed between Tomago Aluminium and Regain.

2. References

2.1. Approval and Licence References

- DPIE Major Project Approval MP06_0050 approved on 7th August 2009 and as subsequently modified on 22 August 2019 (MP06_0050 MOD 2)
- Environment Protection Licence (EPL) No. 13269
- Environment Protection Licence No. 20976
- Environmentally Hazardous Chemicals Act (EHC) Licence No. 88
- Environmental Assessment:
- AECOM Environmental Assessment – Capacity Increase at the Regain Spent Potlining Facility, Tomago NSW (December 2018).

2.2. Reference Acts, Regulatory Guidelines and Standards

- Environmental Planning and Assessment Act 1979
- Protection of the Environment Operations Act 1997
- Environmentally Hazardous Chemical Act 1985
- Dangerous Goods (Road and Rail Transport) Act 2008
- Work Health and Safety Act 2011
- Australian New Zealand Standard AS/NZ ISO 14001 Environmental Management Systems
- Waste Classification Guidelines
- NSW Department of Environment and Climate Change - Storing and Handling Liquids: Environmental Protection, Participants Manual
- Australian New Zealand Standard AS/NZ ISO 14001 Environmental Management Systems.

2.3. Tomago Aluminium Reference Documents

- Tomago Aluminium Supply Contract for Onsite Services
- Tomago Aluminium Environmental Management System Overview
- Tomago Aluminium Waste Management Guidelines
- Tomago Aluminium Water Management Program.

3. Regulatory and Tomago Aluminium Requirements

3.1. Development Approval Requirements

The SPL Processing Facility operates in accordance with the requirements of DPIE Major Project Approval MP06_0050 and Project Approval MP06_0050 MOD 2. Schedule 3 and Schedule 4 of the Project Approval references specific environmental conditions. Table 1 sets out the relevant condition in the approval documents, the requirements to be met and the approach to meeting each requirement.

Table 1 - Development Approval Requirements

Condition	Requirement	Approach to Meeting Requirement
Condition 1	The proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the operation of the project.	Reasonable and feasible measures identified in the comprehensive work leading to the EA and MP06_0050 Approvals implemented through the OEMP. Section 8 and Section 15 describe framework for continuous improvement in measures.
Condition 2	The proponent shall carry out the project generally in accordance with the: a) Project Application 06_0050 b) EA c) MOD 1 d) MOD 2 e) Project layout plans and drawing listed in Appendix A f) Statement of commitments listed in MOD 2; and g) Conditions of this approval	As set out in this OEMP document.
Condition 3	If there is any inconsistency between the above, the conditions of this approval shall prevail to the extent of any inconsistency.	Refer to Condition 2 above.
Condition 4	The proponent shall comply with any reasonable requirement/s of the Planning Secretary arising from the Department's assessment: - Any reports, plans, strategies, programs or correspondence that are submitted in accordance with this approval; and - The implementation of any actions or measures contained in these reports, plans, strategies, programs or correspondence.	Section 8 and Section 15 describe continuous improvement framework. Section 10 describes the approach to management of change.
Condition 5	The proponent must not receive or process more than 60,000 tonnes of SPL per year.	Section 15.1 refers to the Environmentally Hazardous Chemical Act Reporting setting out quantities of waste material processed and products dispatched.
Condition 6	The SPL Recycling Facility shall recycle SPL into non-hazardous waste or a useable product.	Section 1.2 describes the recycling of SPL into HiCAL product for use in the cement industry.

Condition	Requirement	Approach to Meeting Requirement
Condition 10	The Proponent shall ensure that all plant and equipment used on the site is: • Maintained in a proper and efficient condition; and • Operated in a proper and efficient manner.	Section 12 describes the function of the process control software in operating the process plant and in monitoring of equipment integrity. It also describes processes for process facility configuration management and preventive maintenance. Section 8 refers to the training of plant operators.
Condition 11	The Proponent shall comply with Section 120 of the <i>Protection of the Environment Operations Act 1997</i>.	Section 7 (table 7) describes how the risk of pollution of waters is controlled. The Stormwater Management Plan in Attachment 2 provides more detailed information. Section 3.2 describes the requirements of the Environmental Protection Licence (EPL) for the SPL Facility and how the requirements are addressed.
Condition 12	All SPL waste must be stored and processed under cover or within the thermal treatment plant	Section 7 (table 7) refers to the requirement for storing and processing SPL. Appendix B shows a layout of the SPL Processing Facility with its operating areas
Condition 13	All chemicals, fuels and oils shall be stored in appropriately bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund.	Section 7 refers to the requirement for bunded storage of chemicals and oils
Condition 15C	The surface water management system must be operated and maintained for the duration of the project	Attachment 2 provides information on the stormwater management system. Section 12 describes how integrity of the stormwater handling equipment is ensured.

Condition	Requirement	Approach to Meeting Requirement
Condition 16B	Within 12 months the commencement of stage 1 operations of the Project and every five years thereafter, or at such intervals as the Planning Secretary may agree, the Proponent shall carry out a comprehensive Hazard Audit of the Project and within one month of each audit submit a report to the satisfaction of the Planning Secretary. The Hazard Audit must: a) be carried out at the Proponent expense by a qualified person or team, independent of the Project, approved by the Planning Secretary prior to commencement of the audit. Hazard Audits shall be carried out in accordance with the Department's Hazardous Industry Planning Advisory Paper No.5, 'Hazard Audit. b) include a review of the site Safety Management System and a review of all entries made in the incident register since the previous audit. c) be accompanied by a program for the implementation of all recommendations made in the audit report. If the Proponent intends to defer the implementation of a recommendation, reasons must be documented.	Section 14.3 outlines the requirement for the audits.
Condition 16C	The Proponent must comply with all reasonable requirements of the Planning Secretary in respect of the implementation of any measures arising from the reports submitted in respect of Conditions 16, 16A and 168 inclusive, within such time as the Planning Secretary may agree.	Section 10 describes the management of change and refers to the fact that change may be initiated by requirements from regulatory authorities.
Condition 17	The Proponent must carry out all reasonable and feasible measures to minimise dust generated by the project	Section 7 (table 7) describes operating risk controls to minimise dust.
Condition 18	The Proponent must install and operate all SPL plant equipment in line with best practice to ensure the Project complies with all load limits, air quality criteria and air quality monitoring requirements as specified in the EPL for the site.	Section 12 describes systems for ensuring integrity of process plant environmental control, equipment. Section 14.1 refers to bi-annual emissions monitoring the air emission verification report and EPL Annual Returns.

Condition	Requirement	Approach to Meeting Requirement									
Condition 19	Within 12 months of commissioning Stage 1 operations and Stage 2 operations, the Proponent must submit a post commissioning air emission verification report (AEVR) to the satisfaction of the Planning Secretary (the report). The AEVR must: - must be prepared by a suitably qualified and experienced person(s); - include all emission test and analytical results from post commissioning emission monitoring required to be undertaken by the EPL; - compare the results of the post commissioning monitoring against emission limits contained in the EPL for the relevant emission points where the comparison shows monitored discharge concentrations higher than the EPL limits; - must identify mitigation measures to achieve the EPL emission limits; and include details of any amendments to the EPL as a result of the EPA's review of the AEVR.	Section 14.1 refers to the AEVR.									
Condition 20	The Proponent shall comply with the following restrictions: - Operation - All days	Section 7 refers the SPL Processing Facility operating 24 hours per day, seven days per week									
Condition 21	The proponent shall ensure that the noise from the operation of the project does not exceed the noise limits presented in Table 2: Project Noise Limits (dB(A)) <table border="1"> <thead> <tr> <th>Location</th><th>Day/Evening/Night</th><th>Night</th></tr> </thead> <tbody> <tr> <td>Residences on Tomago Road</td><td>35 dBAL_{Aeq} (15 minutes)</td><td>45 dBAL_{Aeq} (1 minute)</td></tr> <tr> <td>Industrial Receivers</td><td>70 dBAL_{Aeq}</td><td>70 dBAL_{Aeq} (1 minute)</td></tr> </tbody> </table>	Location	Day/Evening/Night	Night	Residences on Tomago Road	35 dBAL _{Aeq} (15 minutes)	45 dBAL _{Aeq} (1 minute)	Industrial Receivers	70 dBAL _{Aeq}	70 dBAL _{Aeq} (1 minute)	Section 7 (table 7) refers to acoustic monitoring conducted for noise compliance at the SPL Facility and at identified sensitive receptors.
Location	Day/Evening/Night	Night									
Residences on Tomago Road	35 dBAL _{Aeq} (15 minutes)	45 dBAL _{Aeq} (1 minute)									
Industrial Receivers	70 dBAL _{Aeq}	70 dBAL _{Aeq} (1 minute)									
Condition 22	At all times the Proponent shall ensure that: - all trucks entering or leaving the site with loads have their loads covered; - trucks associated with the project do not track dirt onto the public road network; and - the public roads used by these trucks are kept clean of any Regain products or materials.	Section 7 (table 7) describes operating risk controls associated with trucks.									
Condition 23	The Proponent shall ensure that: - all parking generated by the project is accommodated on site, and that no vehicles associated with the project shall park on the public road system at any stage; - that the project does not result in any vehicles queuing on the public road network; - vehicles associated with the project are operated at low speed or power within the TAC site and are turned off when not being used; and - vehicles are not to be left idling for prolonged periods.	Section 7 (table 7) describes operating risk controls associated with trucks traffic.									

Condition	Requirement	Approach to Meeting Requirement
Condition 24	The proponent shall ensure that waste would be reused, recycled and if necessary, appropriately treated and disposed of in accordance with DECC's Waste Classification Guidelines.	Section 7 (table 7) describes operating practices for waste reuse, recycling and disposal.
Condition 25	The Proponent shall ensure that the lighting associated with the project: a) complies with the latest version of Australian Standard AS 4282(N7)-Control of Obtrusive Effects of Outdoor Lighting; and b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	Section 7 (table 7) describes operating practices regarding lighting for the SPL Processing Facility.

Condition	Requirement	Approach to Meeting Requirement
Condition 26	Management plans required under this approval must be prepared in accordance with relevant guidelines, and include: a) details of: - i.) the relevant statutory requirements (including any relevant approval, licence or lease conditions); - ii.) any relevant limits or performance measures and criteria; and - iii.) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; b) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; c) a program to monitor and report on the: - i.) impacts and environmental performance of the development; and - ii.) effectiveness of the management measures set out pursuant to paragraph (b) above; d) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; e) a program to investigate and implement ways to improve the environmental performance of the development over time; f) a protocol for managing and reporting any: - i.) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria); - ii.) complaint; - iii.) failure to comply with statutory requirements; and g) a protocol for periodic review of the plan.	This OEMP is the primary management plan for the operating phase of the project. Section 6 describes the measures to be implemented to comply with relevant statutory requirements including the requirement of the Approvals, the EPL and the EHC Licence. Section 14.1 describes the program of monitoring and reporting. Section 13.1 addresses pollution incident response. Attachment 1 is a copy of the Pollution Incident Response Management Plan. Section 13.2 addresses emergency response and Attachment 5 is a copy of the Emergency Response Plan. Section 5 refers to the commitment to continual improvement in Regain Environment Policy and how management systems foster continual improvement. Section 10.3 sets out a contingency plan to manage unpredicted impacts and their consequences. Section 9.3 Refers to systemic improvement through Improvement Reports. Section 14.4 refers to continual improvement as a key function of management reviews. Section 5.2 identifies how continual improvement is embedded in the design of the RMS and the plan – do – check –act cycle. Section 9 describes the processes for dealing with incidents, complaints and non-compliances. Section 14.4 describes periodic management reviews of the OEMP.

Condition	Requirement	Approach to Meeting Requirement
Condition 26D	As part of the OEMP required under Condition 26C. of this approval, the Proponent must include the following: a) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Project; b) describe the procedures that would be implemented to: - i.) keep the local community and relevant agencies informed about the operation and environmental performance of the Project; - ii.) receive, handle, respond to, and record complaints; - iii.) resolve any disputes that may arise; - iv.) respond to any non-compliance; - v.) respond to emergencies; and c) include the following environmental management plans: (i) Air Quality Management Plan (see Condition 18A).	Section 4 sets out organisational roles and responsibilities. Section 9 describes the processes for dealing with, complaints and non-compliances. Attachment 6, Notifiable Incident Procedure provides additional information on processes for dealing with complaints, incidents and disputes. Section 13 describes the response plans for emergencies. Attachment 4 is a copy of the Air Quality Management Plan
Condition 26E	The Proponent must: a) not commence operation until the OEMP is approved by the Planning Secretary; b) operate the Project in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	Operations must not commence prior to approval of the OEMP which is then the primary management plan for the operating phase of the project. Section 10 refers to revision to the OEMP requiring approval.
Condition 26F	Within three months of: a) the submission of a Compliance Report under Condition 28C; b) the submission of an incident report under Condition 27; c) the submission of an Independent Audit under Condition 29; d) the approval of any modification of the conditions of this approval, or e) the issue of a direction of the Planning Secretary under Condition 261 which requires a review	Refer to Condition 26G below.
Condition 26G	The strategies, plans and programs required under this approval must be reviewed, and the Department must be notified in writing that a review is being carried out.	Section 14.4 refers to the requirement for management review of the OEMP and review of strategies, programs and other plans associated with or relating to this OEMP
Condition 26H	If necessary to either improve the environmental performance of the Project, cater for a modification or comply with a direction, the strategies, plans and programs required under this approval must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review.	Section 10 refers to revision to the OEMP requiring approval.

Condition	Requirement	Approach to Meeting Requirement
Condition 27	The Department must be notified in writing to compliance@planning.nsw.gov.au immediately after the Proponent becomes aware of an incident. The notification must identify the Project (including the Project application number and the name of the Project if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix B.	Section 9.2 describes the processes for incident reporting. Attachment 6 , Notifiable Incident Procedure provides additional information on processes for notifying the Department of an incident.
Condition 28	The Department must be notified in writing to compliance@planning.nsw.gov.au within seven days after the Proponent becomes aware of any non-compliance.	Section 9.2 refers to the processes for non-compliance notification. Attachment 6 , Notifiable Incident Procedure, provides additional information on processes for notifying the Department of a non-compliance.
Condition 28A	A non-compliance notification must identify the Project and the application number for it, set out the condition of approval that the Project is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Attachment 6 , Notifiable Incident Procedure, provides information to be included when notifying the Department of a non-compliance
Condition 28B	A non-compliance which has been notified as an incident does not need to also be notified as a noncompliance.	Refer to conditions 27 and 28 above.
Condition 28D	Compliance Reports of the Project must be carried out in accordance with the Compliance Reporting Post Approval Requirements (Department 2018).	Section 14.1 refers to the requirement for Compliance Reports
Condition 28	The Proponent must make each Compliance Report publicly available no later than 60 days after submitting it to the Department and notify the Department in writing at least seven days before this is done.	Section 14.1 refers to the posting of Compliance Reports on Regain website.
Condition 30	Independent Audits of the Project must be carried out in accordance with: a) the Independent Audit Program submitted to the Department under Condition 29 of this approval; and b) the requirements for an Independent Audit Methodology and Independent Audit Report in the Independent Audit Post Approval Requirements (Department 2018)."	Section 14.3 refers to the requirement for Independent Audits.

Condition	Requirement	Approach to Meeting Requirement
Condition 31	In accordance with the specific requirements in the Independent Audit Post Approval Requirements (Department 2018), the Proponent must: - review and respond to each Independent Audit Report prepared under Condition 30 of this approval; - submit the response to the Department; and - make each Independent Audit Report and response to it publicly available no later than 60 days after submission to the Department and notify the Department in writing at least seven days before this is done.	Section 14.3 refers to review and response to the Independent Audit Report and submission to the Department
Condition 32	Any condition of this approval that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing.	Section 14.3 refers to Independent Audits. Section 9 addresses incident notification, reporting and response, non-compliance notification, compliance reporting
Appendix B Item 1	A written incident notification addressing the requirements set out below must be emailed to the Department at the following address: compliance@planning.nsw.gov.au within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under condition 27 or, having given such notification, subsequently forms the view that an incident has not occurred.	Section 9.2 describes the processes for incident reporting.
Appendix B Item 2	Written notification of an incident must: - identify the development and application number; - provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident); - identify how the incident was detected; - identify when the applicant became aware of the incident; - identify any actual or potential non-compliance with conditions of consent; - describe what immediate steps were taken in relation to the incident; - identify further action(s) that will be taken in relation to the incident; and - identify a project contact for further communication regarding the incident.	Attachment 6 , Notifiable Incident Procedure sets out information to be provided when notifying the Department of an incident.

Condition	Requirement	Approach to Meeting Requirement
Appendix B Item 3	Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.	Attachment 6 , Notifiable Incident Procedure sets out the requirement for a detailed report and the required time periods.
Appendix B Item 4	4. The Incident Report must include: a) a summary of the incident; b) outcomes of an incident investigation, including identification of the cause of the incident; c) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and d) details of any communication with other stakeholders regarding the incident.	Attachment 6 , Notifiable Incident Procedure sets out information to be included in an Incident Report to the Department

3.2. Environmental Protection Licence Requirements

The SPL Facility is operated under Environmental Protection Licence (EPL) 13269. Requirements of EPL are set out on table 2 along with the approach to meeting each requirement.

Table 2 - Environmental Licence Requirements

Condition	Requirement	Approach to Meeting Requirement
L2.1 L2.3	Emission Concentration Limits - For each monitoring/discharge point or utilisation area specified in the EPL table\ the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the condition tables.	Section 14.1 refers to the requirement for bi-annual exhaust stack monitoring and reporting and for providing reporting data on Regain website
L3	Noise limits - Noise from the premises must not exceed the noise limits shown in the condition table.	Section 7 (table 7) refers to acoustic testing conducted for noise compliance at the SPL Facility and at identified sensitive receptors.
O1.1	Operating Conditions - Activities must be carried out in a competent manner: This includes: a) The processing, handling, movement and storage of materials and substances used to carry out the activity b) The treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Section 7 (table 7) sets out operating practices.
O2.1	Maintenance of plant and equipment: All plant and equipment installed at the premises or used in connection with the licensed activity: A. Must be maintained in a proper and efficient condition B. Must be operated in a proper and efficient manner	Section 12 describes the processes for process facility configuration management and preventive maintenance. It also describes the function of the process control software in operating the process plant and in monitoring of equipment integrity. Section 8 refers to the training of plant operators
O3.1	Dust - All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.	Section 7 (table 7) sets out operating practices for dust control.
O3.2	Dust - No visible dust shall be emitted from the premises at any time.	Section 7 (table 7) sets out operating practices for dust control. Section 12 describes measures to sustain equipment integrity required to prevent dust emission
O4.1	Emergency Response - The Licensee must ensure that persons conveying and/or handling spent pot-line waste containing fluoride and/or cyanide are trained in methods to appropriately deal with, and contain, spills or incidents.	Section 13.1 addresses pollution incident response. Attachment 1 is a copy of the Pollution Incident Response Management Plan.

Condition	Requirement	Approach to Meeting Requirement
O4.2	Emergency Response – In the event of a spill or incident the Licensee must take all necessary and appropriate actions to ensure the spill or incident is contained and managed in an appropriate manner so that it does not further migrate within the premises, or to adjoining premises, or waters and does not pollute the premises, or adjoining premises or waters.	Section 13.1 addresses pollution incident response. Attachment 1 is a copy of the Pollution Incident Response Management Plan.
O5.1	Waste Management – All above ground tanks containing material that is likely to cause environmental harm must be bunded or have an alternative spill containment system in place.	Section 7 (table 7) refers to the requirement for bunded storage of chemicals and oils. Attachment 1 is a copy of the Pollution Incident Response Management Plan which describes spill containment measures.
O5.3	Waste Management – Spent potliner waste containing fluoride and cyanide must be kept on the premises in such a manner so that no leachate nor wind borne material can escape from the premises.	Section 7 (table 7) sets out risk controls for dust and stormwater management.
O5.4	Waste Management – The storage area for the spent potliner waste must be maintained in good order and condition.	Section 7 (table 7) refers to housekeeping dust and waste management.
M2.1	Monitor concentration of pollutants discharged – For each monitoring/discharge point or utilisation area specified, the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in M2.2.	Section 14.1 refers to the requirement for bi-annual exhaust stack monitoring and reporting
M2.4	Air Monitoring – For each monitoring point specified in the table below the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified in Column 1. The licensee must use the sampling method, units of measure, averaging period and sample at the frequency, specified opposite in the other columns.	Section 14.1 refers to the requirement for bi-annual exhaust stack monitoring and reporting
M4.1	Weather monitoring – For each monitoring point specified in the table , the licensee must monitor (by sampling and obtaining results by analysis) the parameters specified.	The continuous frequency requirement is met by the meteorological data available to Regain for Tomago Smelter Tomago Aluminium weather monitoring station.
M5	Pollution Complaints – The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Section 9.2 refers to complaints handling. Attachment 6 , Notifiable Incident Procedure provides additional information on processes for dealing with complaints.
M6	Telephone complaints line -The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Section 9.2 describes Feedback/Complaints access and management direct contact telephone numbers available on website

Condition	Requirement	Approach to Meeting Requirement
R1	Reporting Conditions, Annual return documents - The licensee must complete and supply to the EPA an Annual Return.	Section 14.1 refers to Annual return documents prepared and lodged in accordance with the EPL conditions set out in R1.
R2	Reporting Conditions: Notification of environmental harm – The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	Section 9 sets out Regain incident reporting to identify and report environmental incidents. This is further described in Attachment 6, Notifiable Incident Procedure Section 31.2 refers to Pollution Incident Response. Attachment 1 is a copy of the Pollution Incident Response Management Plan

3.3 Environmentally Hazardous Chemicals Act Licence Requirements

The SPL Processing Facility is licenced under the provisions of the Environmentally Hazardous Chemicals Act 1985 (EHC), EHC Licence No. 88. Requirements of the EHC Licence are set out in table 3 below along with the approach to meeting each requirement.

Table 3 - Environmental Hazardous Chemicals Licence Requirements

Condition	Requirement	Approach to Meeting Requirement
2.1	Aluminium smelter waste containing fluoride and/or cyanide must be kept in accordance with the conditions of the Chemical Control Order.	Section 7 (table 7) sets out risk controls for waste material storage and handling.
2.2	Aluminium smelter waste containing fluoride and/or cyanide must be kept on the Premises in such a manner that no leachate nor wind borne material can escape from the Premises.	Section 7 (table 7) sets out risk controls for dust and stormwater management.
2.3	The storage site for the aluminium smelter waste must be maintained in good order and condition.	Section 7 (table 7) describes housekeeping and maintenance practices.
2.4	The Premises must be provided with physical security to prevent unauthorised access.	Section 7 (table 7) refers to Tomago Aluminium site access control
3.3	Aluminium smelter waste must be stored and processed under cover.	Section 7 (table 7) refers to the requirement for storing SPL under cover.
4	Conveying, storing and handling of wastes and products must be properly controlled.	Section 7 (table 7) refers to the requirement for storing and processing SPL. Appendix B shows a layout of the SPL Processing Facility with its operating areas
5	Incident Management – Licensee must ensure that persons conveying or handling waste or products from waste are trained and equipment to handle spills or incidents.	Section 8 refers to training generally and specifically in relation to spills or incidents. Attachment 1 , Pollution Incident Response Management Plant refers to training and drills
6	Incident Reporting – The Licensee must notify EPA of contamination of the premises or spill that may cause harm.	Section 9.2 describes the processes for incident reporting. Attachment 6 , Notifiable Incident Procedure provides additional information on processes for notifying EPA of an incident.
7	Annual Report – The Licensee must notify EPA with an Annual report within 60 days of each anniversary date of the Licence.	Section 14.1 refers to Annual return documents prepared and lodged in accordance with the EHC Licence conditions.

3.4 Environmental Assessment Requirements

The Environmental Assessment (EA) for the SPL Processing Facility sets out a Statement of Commitments to Environmental Issues. The below table summarises statement of operational phase commitments and the approach to meeting each commitment. See AECOM Environmental Assessment (Nov 2018) section 8.0, pages 107 to 110 and section 2.4 page13.

Table 4 – Environmental Assessment Requirements

Issue	Requirement	Approach to Meeting Requirement
General 1.	Implement all practicable measures to prevent or minimise harm to the environment that may result from the construction or operation of the project.	SPL Process Plant Construction Erosion and Sediment Control Plan
General 4.	Update a current EMP prepared for the existing site activities.	As set out in this OEMP document.
General 5.	Operate the facility in accordance with existing EPA pollution control approvals for existing operations at the Tomago smelter.	Section 3.1 (table 1) sets out pollution control, requirements.
General 6.	Operate the facility in accordance with existing EPA Environmental Protection Licences (EPLs) issued for existing operations of the smelter.	Section 3.2 (table 2) sets out EPL requirements.
General 7.	Ensure regular inspection, monitoring and auditing is undertaken to maintain effective environmental management and to highlight non-compliance of standards, conditions or licence requirements.	Section 7 (table 7) refers to housekeeping. Section 14.3 refers to environmental auditing. Section 9 sets out processes for dealing with non-compliances
General 8.	Ensure routine monitoring of air quality, groundwater and surface water is undertaken. Groundwater and surface water monitoring is undertaken in conjunction with the TAC smelter existing monitoring program where appropriate.	Section 14.1 refers to the requirement for bi-annual exhaust stack monitoring and reporting. Section 7 (table 7) refers to monitoring of groundwater and surface water,
Air Quality 4.	Maintain processing plant and Shed 5 under negative pressure, treated products would be maintained in a moist condition, to mitigate fugitive emissions.	Section 7 (table 7) refers to keeping Shed 5 under negative pressure and keeping product damp for dust control.
Air Quality 5.	Control SPL processing stages to destroy cyanide and hazardous gases.	Section 12 describes process and process control functionality.
Air Quality 6.	Control the thermal treatment process (i.e. maintain the temperature below 850°C) to minimise liberation of gaseous fluoride.	Section 12 refers to control of process temperature.
Air Quality 7.	Operate baghouse dust collectors to minimise emissions of particulate matter and particulate-bound contaminants.	Section 12 refers to control of particulate and dust.
Air Quality 8.	Apply appropriate housekeeping practices to minimise dust generation from concrete apron areas.	Section 7 (table 7) refers to housekeeping and sweeping to minimise dust.

Issue	Requirement	Approach to Meeting Requirement
Hazard and Risk 1.	Prepare and implement a Safety Management System (SMS) for the SPL plant to include elements of the operations, maintenance and management of the facility. The SMS would be developed in accordance with the guidelines issued by the Department of Planning in Hazardous Industry Planning Advisory Paper No.9, "Guidelines for Safety Management Systems".	Section 5.2 refers to the SMS and the DPIE Guideline.
Human Health 1.	The environmental controls as listed in Section 2.4 of the EA would be implemented: - SPL Handling and Preparation – SPL materials preparation activities would be undertaken within Shed 5 which is fitted with roller shutter doors and dedicated dust extraction - Product Handling – Product stored in Shed 6 would be maintained in a moist state using fine water sprays periodically to minimise the potential for dust generation.	Section 7 (table 7) refers to SPL handling in Shed 5 and product storage in Shed 6.
Traffic and Transport	The following specific traffic mitigation measures would be applied to the Project during operation: - Site access procedures including the proposed haulage route would be, communicated to site personnel and heavy vehicle operators. - Trucks would ensure loads are appropriately covered and sealed to protect transported material from wind and rain.	Section 7 (table 7) refers to truck driver induction and awareness and to truck load covering.
Noise and Vibration 1.	Implement noise mitigation strategies to achieve the following: - Operational noise levels are maintained at 10 dB(A) below the existing Leq noise level of the smelter; and - The L1 (1 min) level of any specific noise source would not exceed the background noise level (L90) by more than 15 dB(A) when measured outside the bedroom window of the nearest residential receiver (in accordance with DECC's Environmental Noise Control Manual).	Section 7 (table 7) refers to acoustic testing conducted for noise compliance at the SPL Facility and at identified sensitive receptors.
Waste 5.	SPL material would be maintained under cover within Shed 5 prior to processing.	Section 7 (table 7) refers to SPL handling under cover in Shed 5
Waste 6.	Exposed treated product would be maintained in a moist condition to prevent dust rising. Treated product would be stockpiled within Shed 6.	Section 7 (table 7) refers to maintaining treated product moist and storage in Shed 6.
Water and Soil 1.	The Stormwater Management Plan would be reviewed and updated to accompany the modified Project.	Section 7 (table 7) refers to Stormwater Management Plan (SWMP). Attachment 2 is a copy of the SWMP.
Water and Soil 2.	Implement all practicable measures to minimise the discharge of sediments, contaminants and pollutants to surface and ground water as a result of the operation of the facility.	Attachment 3 is a copy of the Erosion and Sediment Control Plan.

Issue	Requirement	Approach to Meeting Requirement
Water and Soil 4.	Ensure there is no outside truck loading in the SPL facility during rain periods.	Section 7 (table 7) refers to not loading trucks outside during rain periods.

3.5 Tomago Aluminium Requirements

Tomago Aluminium requirements as set out in the Agreement between Tomago Aluminium and Regain are set out in the table below along with the approach to meeting each requirement.

Table 5 – Tomago Aluminium Environmental Requirements

Condition	Requirement	Approach to Meeting Requirement
A7.1	Regain shall develop and adhere to Environment, Health and Safety Plans for the Reprocessing Facility	Section 5.2 refers to Environment, Health and Safety Plans
A7.7	Regain shall deliver to Tomago Aluminium reports of its activities under this Agreement.	Section 14.1 refers to monthly KPI Reports
S4-12.4	Regain must notify Tomago Aluminium of any potential for environmental harm, complaint or Government Action	Section 9.2 describes the processes for incident reporting. Attachment 6 , Notifiable Incident Procedure provides additional information on processes for notifying the Department of an incident.

4. Organisational Responsibilities

The key roles and responsibilities in the Regain organisation are shown in table 6 and figure 2.

Table 6 – Key Roles and Responsibilities of Regain Personnel

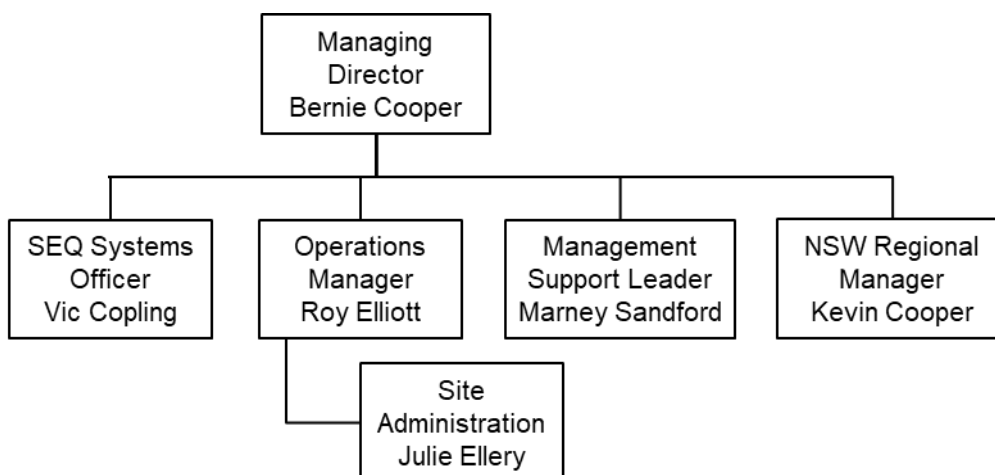


Figure 2 – Regain Organisation Structure

Table 6 – Key Roles and Responsibilities of Regain Personnel

Role	Responsibilities
Regain Operations Manager	- Establishing the Tomago site-wide environmental management system - Ensuring that the people working on or visiting the site are properly inducted, trained and competent in the activities in which they are involved - Ensuring that any environmental incidents are properly reported, investigated and documented - Periodic communication with Tomago Aluminium staff to verify that this OEMP is up to date and in compliance with the requirements agreed between Tomago Aluminium and Regain - Ongoing liaison with Tomago Aluminum environmental personnel - Reinforcing environmental awareness for Regain Operations personnel - Ongoing improvement of operational level Environmental Management and performance.
Site Administration Officer	Collating reports and maintaining records.
Safety, Environmental and Quality (SEQ) Systems Officer	- Reviewing site operation procedures to ensure the requirements of this OEMP are adequately covered - Auditing of site work for compliance with this OEMP
NSW Regional Manager	- Liaison with NSW Government regulatory authorities - Review operational plans for compliance with approval and licence requirements - Arranging independent audits
Regain Managing Director	- Conducting periodic management reviews of this OEMP to ensure its ongoing relevance and effectiveness - Ongoing improvement of Regain organisational systems with respect to Environmental Management

A list of the names and contact details of Regain people to be contacted in the event of environmental incident or to receive complaints is provided in Appendix C. These people have authority to direct operations. The names and contact details are also shown on the Regain website (<http://www.regainmaterials.com/about/regain-operations/tomago>) and also in the Pollution Incident Response Management Plan and the Emergency Response Plan.

5. Environmental Management System

5.1 Regain Environmental Management Policy

The Regain Environmental Management Policy is intended to provide a clear, succinct and meaningful statement that reflects the Regain culture and commitment to environmental management. It identifies the key aspects of the management system that provides the basis for implementing Regain's commitment to environmental management. A copy of the Regain Environmental Management Policy is provided in Appendix D.

5.2 Regain Management System

The Regain Management System (RMS) is based on quality management principles and intended to achieve the outcomes defined in AS/NZS ISO 14001, AS/NZS ISO 45001 and AS/NZS ISO 9001 Environment Management, Quality and Safety Standards (the ISO Standards). The RMS is accredited to these standards for the scope of "Reprocessing Spent Pot Lining (SPL) from Aluminium Smelting industry into non-hazardous product used in the cement industry. Design, and project manage construction of SPL processing plant."

This OEMP is the primary document that addresses the implementation of the AS/NZS ISO 14001 Environmental Management Systems standard. A separate Safety Plan document sets out the safety management system (SMS) for the SPL Processing Facility in accordance with the AS/NZS ISO 14001 Safety Management Systems standard. The SMS is developed in accordance with the guidelines issued by DPIE in Hazardous Industry Planning Advisory Paper No.9, "Guidelines for Safety Management Systems". A Quality Systems Plan for the facility addresses compliance with AS/NZS ISO 9001 Quality Management Systems standard.

The RMS fits in the concepts of the ISO Standards process approach and plan-do-check-act cycle as depicted in figure 3. Regain applies these concepts to assist in meeting the requirements of the ISO Standards and to achieve intended outcomes and foster continual improvement.

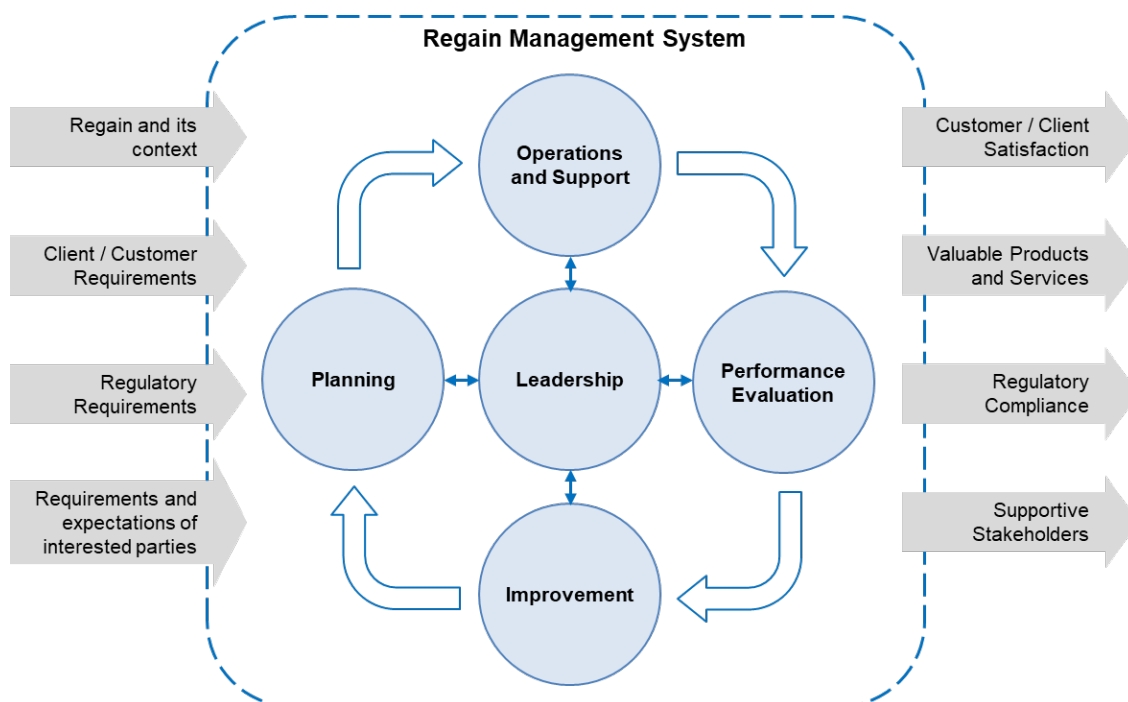


Figure 3 – Regain Management System Process Flow and the Plan–Do–Check–Act Cycle

5.3 Documentation and Records Management

Items subject to quality control such as controlled documents, processes and plant instruments are identified and controlled as objects in the Regain Lifecycle Management System (LMS). The LMS is an enterprise grade electronic computer application software platform within the RMS, in which the lifecycle of each RMS document is traced and the interrelationships between the document and other objects such as requirements or process plant equipment are mapped.

A typical document lifecycle involves stages such as initiation, preparation, verification, review and release for use (approval). If an object is subject to change after it has been released for use then the verification, review and release stages are repeated as part of the change control for the document.

The LMS may be accessed electronically through the Internet by authorised people. The LMS presents the current version of each controlled document for use. It separately manages and provides an historical record of superseded and otherwise obsolete documents. The LMS monitors document review cycles and prompts with a notification when a controlled document review is coming due.

Records that provide evidence of completion of a significant activity such as an audit, incident report, and incident investigation are stored in electronic form in the LMS. Paper copies of these records are also maintained for appropriate pre-determined periods.

Records of regular and frequent activities that involve electronic or paper forms such as pre-start checks and housekeeping inspection reports are maintained in paper files or electronic databases separate from the LMS. These records are readily retrievable and are retained for appropriate pre-determined periods.

6. Hazard Identification, Risk Assessment and Control

The approach to environmental hazard identification and risk assessment may be summarised as:

- Identification and analysis of the environmental hazards,
- Forecasting of credible consequences in the form of potential loss events
- Considering all credible options for controlling the risk and then defining the reasonably practicable safeguards required to eliminate risk associated with the hazards or, if the risk cannot be eliminated, then the safeguards required to limit the extent of damage or harm if a loss event actually occurs.

Environmental hazards, assessment of risks and risk controls are systematically identified and documented through the following techniques.

1. Hazard and Operability Study (HAZOP) towards the end of the process plant design phase .
2. Hazard and Loss Event Prevention Analysis (HAZLEPs) for general operations activities.
3. Safe Work Method Statements (SWMS) for operations and maintenance tasks.
4. Job Safety Analysis (JSA) / Work Planning for employee engagement and communication focussed on tasks during operations and maintenance tasks.
5. Change Control to manage modifications to process plant, systems or products.
6. Hazard and Incident reporting for use by employees, contractors and visitors.

All techniques require the active participation of people who are knowledgeable with the aspects of the particular system or work process to which a hazard identification and risk assessment technique is being applied. This includes familiarity with the operations and plant maintenance.

7. Operational Environmental Management

7.1. Operational Environmental Risk Management

Key operational environmental risks associated SPL Processing Facility operations, a summary of the pre-emptive risk controls are set out in table 7. As the SPL Processing Facility operates 24 hours per day, seven days per week it is imperative that the risk controls set out in table 7 are implemented at all times.

Table 7 – Key Operational Environmental Risks and Controls

Hazard	Environmental Risk Posed by Operations	Risk Controls
Dust	Nuisance dust and/or discharges from process plant outside license limits	Handle, store and process SPL material under cover – which means inside buildings or within enclosed equipment that is part of the thermal treatment plant Ensure that roller doors on SPL Building (Shed 5) are closed when handling and processing SPL in that building and that the building is under negative pressure Keep material, including product stored in Shed 6, damp after processing to control dust Ensure loads on trucks transporting bulk materials are covered Prevent build-up of dust or materials outside buildings: • rumble grids at doorways of main process buildings (Shed 5 & Shed 6) • regularly sweep site roads and paved areas Visual inspection of trucks and trailers after loading and unloading to ensure no loose material on equipment that could drop on public roads Ensure trucks are not tracking dirt onto public roads Regular housekeeping checks Routine baghouse dust collector inspection and maintenance Particulate emission monitoring of discharge points in accordance with EPL.
Pollution of Waters	Stormwater runoff contaminated with waste	SPL Facility Stormwater Capture System intercepts contaminated stormwater and pumps it to storage tanks for recycling as process water for the thermal treatment plant Ensure no outside truck loading during rain periods Monitor groundwater and surface water in conjunction with the Tomago Aluminium Smelter existing monitoring program Maintain and operate stormwater controls in accordance with the site: - Stormwater Management Plan (see Attachment 2) - Erosion and Sediment Control Plan (see Attachment 3)

Hazard	Environmental Risk Posed by Operations	Risk Controls
Hazardous Substances	Environmental and health damage from hazardous substances	Section 7.2 provides information on the control of SPL and other aluminium smelter hazardous materials. Other hazardous substances at the site are in relatively small quantities. These are identified in accordance with the Globally Harmonised System (GHS) chemical hazard classification, labelling and safety data sheets (SDS) Chemicals and oils are stored in bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund A Hazardous Substances Register is maintained to ensure that the hazardous substances stored on site are identified and SDS's are updated as required
Noise	Noise from mobile plant and process plant present a potential for complaints from people outside the Tomago property boundary	Where practical and if necessary, plant and equipment known to emit nuisance noise will be oriented so that the noise is directed away from nearby sensitive receptors (located to the south). Where practical, the quietest suitable plant reasonably available will be selected for each work activity. Trucks regularly used for the Project will be maintained in good working order. Provide parking space either on site or in Tomago Aluminium designated parking areas so that there is no vehicles parked or queuing on the public road system (trucks will not queue near residential properties). Plant and equipment will be well maintained and where applicable fitted with adequately maintained noise attenuation which meet the plant and equipment design specifications. Vehicles or plant must not be left idling for prolonged periods when not in use. Roller doors on SPL Building (Shed 5) are closed when handling and processing SPL in that building.
Traffic	Inconvenience to users of public roads	Provide parking space either on site or in Tomago Aluminium designated parking areas so that there is no vehicles parked or queuing on the public road system Ensure drivers of vehicles entering the site are properly inducted, know the haulage routes, obey Tomago Aluminium speed limits and do not leave vehicles idling.
Waste	Waste accumulation	Where practical, incorporate waste materials into final HiCAL products to be recycled Recycle and manage waste for disposal as part of Tomago Aluminium on site waste recycling and disposal system Waste Classification Guidelines (EPA, 2014) referenced where required prior to disposal.
Unauthorised Access	Malicious damage to process plant and environmental controls	All access to site controlled by Tomago Aluminium security and site access control.

Hazard	Environmental Risk Posed by Operations	Risk Controls
Site Lighting	Adverse impact on neighbours from SPL Processing Facility lighting	Ensure that facility lighting considers the latest version of Australian Standard AS 4282(/N7)-Control of Obtrusive Effects of Outdoor Lighting and that lighting is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.

7.2. Hazardous Waste Material Control

Control of SPL and other hazardous waste materials at the SPL Processing Facility is achieved by maintaining mass balance control. The mass balance is based on the principle that the mass of material that enters a system must either leave the system or accumulate within the system. Material control includes measuring and recording material transfers, reconciling quantities and providing reports with information that typically includes mass balance of materials, inventory on hand, quantity of hazardous materials processed and quantity of products shipped.

The quantity and nature of hazardous waste material processed and products manufactured by Regain are made known and controlled through:

- allocating material to batches, and
- sampling, testing and analysing the material in each batch; and
- weighing the material in each batch; and
- carefully controlling each batch.

New batches are formed when materials are put through a processing stage that requires testing and analysis and/or when part of or all of existing batches are combined.

Raw materials and products are stored and handled in accordance with appropriate regulations. The source(s) of material for each batch are known and traceable. Each consignment of product from the site is made up from one or more identified batches of product that meet the required product specification.

Material Safety Data Sheets are available for each of the materials (including products) that are under Regain control.

Items subject to quality control such as product batches, processes, controlled documents, equipment and instruments are identified and controlled along with records of evidence of compliance in the RMS. The RMS provides is the basis for material control and quality assurance for the SPL Processing.

8. Training and Communication

Relevant requirements of this OEMP are included in environmental aspects of site induction and training modules which are provided for each visitor and person working on the site. Process plant operators are comprehensively trained in the safe and environmentally aware operation of the SPL processing plant and mobile equipment. Training in environmental incident response is provided in accordance with the Pollution Incident Response Management Plan (see Attachment 1).

Training records are maintained using the existing training records management in the RMS and LMS.

Communication on specific environmental matters and nurturing of general environmental awareness is included in:

- Inductions
- Site notice board
- Hazard and Loss Prevention charts
- Toolbox meetings
- Evacuation, emergency response and pollution incident response drills.

9. Incident, Complaint and Non-compliance Reporting and Investigation

9.1. General

The RMS provides for an ongoing system of identification, reporting and investigation of incidents and complaints and formulation of preventive or corrective action. The elements of this system are set out in the following sub-sections. The preventive actions to eliminate potential non-conformances and corrective actions to address non-conformances are appropriate to the magnitude of the environmental impact.

9.2. Incident and Non-Compliance Reporting

Environmental incidents, including near misses, regulatory non-compliances, RMS non-conformances and/or complaints are identified, described and reported using an Incident Report form. Any immediate actions to respond to the incident are described in the Incident Report. An incident may trigger statutory reporting requirements. These requirements and the actions to meet them are documented in the Notifiable Incident Procedure (see Attachment 6). Regain maintains a Feedback/Complaints Line available on website www.regainmaterials.com and has the telephone numbers of managers published on the website to receive direct public contact if required.

The following information is recorded if a complaint is received:

- Date and time of the complaint
- Mode and means by which the complaint has been made
- Personal details of the complainant (when provided)
- Description of the nature and details of the complaint
- Actions required by Regain in response to the complaint
- Details of any resolutions and agreements made

Complaints are reviewed and where resolution or agreement cannot be achieved immediately, actioned for resolution with senior management involvement and further investigation if required (see Section 9.4). The outcomes of investigation and any corrective action or recommendations are documented.

9.3. Improvement Report

Improvement Reports are used to identify, describe and report matters such as a situation that can be improved, a better way of performing work or something that can be changed that could bring a worthwhile benefit.

9.4. Investigation and Recommendations

For hazards, incidents and suggested improvements that have been reported and for which the response and / or corrective action is relatively simple and straightforward, the response / corrective action is recorded using the appropriate form. If the matter being reported is relatively complex then a separate investigation is conducted. A description of the investigation along with its findings and recommendations are set out in an Investigation Report.

9.5. Communication and Review

Given the relatively small on-site organisation, toolbox meetings provide the primary means by which accidents, near misses, other incidents and the results of investigation are communicated and discussed with the front-line workers. All new and outstanding Incident Reports, Improvement Reports and Investigation Reports are reviewed by Regain Management under the first agenda item of a weekly Operations Coordination Meeting. The results of investigations such as corrective actions are tracked as action items of the Operations Coordination Meeting.

Where an incident requires statutory reporting the results of the investigation are included in a formal report. Further management review of the Incident Reports, Improvement Reports and Investigation Reports and lessons learned takes place with periodic Management Reviews of this OEMP and the Regain Management System (RMS).

10. Pollution Incident, Emergency and Contingency Planning

10.1. Pollution Incident Response

A pollution incident would be handled in accordance with the Pollution Incident Response Management Plan (see Attachment 1). The objectives of this plan are:

- Comprehensive and timely communication about a pollution incident to all recognised stakeholders
- Identification and control of risk of a pollution incident.

10.2. Emergency Response

Any environmental emergency would be handled in accordance with the Emergency Response Plan. (see Attachment 5). The SPL Processing Facility operates within the Tomago Aluminium Smelter Site. Emergency Management on the Tomago Aluminium Smelter Site is prescribed and governed by the Tomago Aluminium Company Emergency Response Plan (TAC-ERP). The application of the TAC-ERP to the SPL Processing Facility and specific emergency response information relating to the Facility is set out in the Emergency Response Plan. This plan addresses:

- Introduction and definition of an emergency
- Aims and objectives of the Emergency Response Plan
- Roles of stakeholders
- Hazards
- Types and levels of emergencies
- Emergency functions and organisational structure
- Emergency procedures and resources
- Activation of the Emergency Response Plan, termination and reporting
- Management of the Plan
- Supporting information such as a site plan and emergency contacts
- Monitoring, audit and review of the Plan

10.3. Contingency Plan

If, potential or actual unintended or unanticipated environmental impacts are identified beyond those predicted in the EA then the following actions are implemented as quickly as possible:

- A. Regain management (Operations Manager, NSW Regional Manager, Managing Director and SEQ Systems Officer) would be notified.
- B. The Pollution Incident Response Management Plan (see Attachment 6) would be activated if required.
- C. DPIE and EPA would be notified and the Regain Notifiable Incident Procedure (Attachment 6) and would be activated if required.
- D. An investigation would be undertaken to identify appropriate environmental controls to address the issue
- E. Recommended actions from the investigation would be implemented and ensure that ongoing impacts reduce to levels below relevant impact assessment criteria.

11. Management of Change

Change in environmental management systems may be identified as part of continuous improvement and/or a change in regulation and/or may be required as a result of a regulatory authority assessment. Well-executed change control for significant changes is essential when changing complex environmental management systems.

Changes are subject to formal review and approval. Review may include the person or people who have initiated the change and the person who would authorise the change. However, review must involve one or more people who:

- Are not initiators of the proposed change
- Are not the person who would approve the proposed change
- Have knowledge of the plant or system design requirements and of potential effects of the proposed change.

Each change requires:

- Review of the requirements that have been defined as associated with the area for which the change is contemplated which may include a revision of the Plant Requirements Document if process equipment is involved
- Being the subject of a formal hazard identification & risk control study
- A Change Report that is subject to review and approval
- Identification of the change, the parts of the plant and/or management systems affected by the change and all relevant documents are stored and cross-referenced in the LMS.

Certain changes may require notification to regulatory authorities and modification to approvals and/or licences. If this is considered likely for a prospective change then the appropriate authority is advised as early as is practically possible. Revision to this OEMP or strategies, programs and other plans associated with or relating to this OEMP must be submitted for approval within six weeks of any review from which the need for revision is identified.

12. Contractor Management

Any contractor that works on the site is subject to a formal Regain pre-qualification process and, separately, a Tomago Aluminium contractor pre-qualification process. These pre-qualification processes address matters such as:

- Contractor environmental and safety performance
- Contractor systems for environmental management
- Competence and quality of contractor personnel
- Organisational culture and willingness of contractor employees to engage positively and comply with systems and procedures.

There are follow-up reviews of contractor performance and systems.

Contractors who work regularly and/or for significant periods on the site are engaged under written contracts that set out responsibilities on the contractor with regard to safety and environmental matters.

Contractor personnel are required to undergo a Tomago Aluminium contractor site induction and a Regain site induction. These inductions provide information on:

- Responsibilities of people working on the site
- Environmental hazards, risk controls and work practices
- Actions during an emergency.

13. Process, Process Control and Equipment Integrity

Reliable and properly operating process plant equipment and mobile equipment are necessary for environmental performance and meeting environmental requirements. Key outputs required from the SPL Processing Plant are:

- Destruction of cyanide in SPL
- Elimination of the propensity of SPL to combine with water and give off flammable gases
- Ensure process temperature does not exceed 850 degrees Celsius
- Ensure particulate and emissions are within approved limits and no dust escapes .

Operation of the process plant is largely automated and achieved with Process Control Software which consists of programmable logic control (PLC) software and supervisory control and data acquisition (SCADA) Software. Process Control Software modules are managed as objects in the LMS. The Process Control Software automatically initiates and monitors process equipment integrity proving sequences on start-up and during operations.

Process control software and process control data are periodically and automatically backed up to offsite storage.

Monitoring and maintaining equipment integrity is achieved through a formal configuration management (CM) system and a documented preventive maintenance (PM) program.

CM is the process of identifying and documenting the characteristics of the structures, systems and components of a process facility, and of ensuring that changes to these characteristics are properly developed, assessed, approved, issued, implemented, verified, recorded and incorporated into the facility documentation.

CM ensures that the construction, operation and maintenance of process plant are in accordance with the design requirements as expressed in Plant Requirements documents and maintain this consistency throughout the operational life-cycle, particularly as changes are being made. CM also ensures that specialist equipment is operated and maintained in accordance with original equipment manufacturer (OEM) operating and maintenance documents.

The physical configuration of each process plant is reflected in the LMS as follows:

- Process functional locations including functional locations for each maintainable item are identified
- Replaceable parts are identified in a parts catalogue
- Replaceable parts in functional locations are linked to the relevant parts catalogue item
- Functional locations are provided for process automation devices and software including –
 - programmable logic controller (PLC) software
 - supervisory control and data acquisition (SCADA) software
 - device control settings such as soft starter settings
 - variable speed drive settings
 - Ethernet switch configurations
 - thermal overload settings.

Each maintainable item has a preventive maintenance plan that sets out inspection and maintenance actions, checklists, measurements to be recorded and the timing of maintenance actions based on elapsed time or operating hours or an as-measured condition or a scheduled date such as for regulatory testing requirements. The preventive maintenance plans/actions are stored in the LMS and the LMS prompts for maintenance action when due.

Facility documentation is stored in the LMS including:

- Requirements Reference documents
- Functional descriptions
- Engineering drawings
- Equipment data sheets
- Testing and commissioning records
- Operation and maintenance documents
- Maintenance records

Significant changes to design requirements and/or physical configuration and/or facility documentation are subject to formal change control with a record of changes maintained in the LMS system.

14. Monitoring, Audit and Review

14.1. Monitoring

A formal program of external reporting enables stakeholder monitoring of environmental performance and compliance. Key reports are:

- Monthly Report to Tomago Aluminium with key performance indicators
- Report on environmental emissions monitoring at six month intervals which is posted on the Regain website at <http://www.regainmaterials.com/about/regain-operations/tomago/tomago-emissions-monitoring-data>
- Post Commissioning Air Emission Verification Report carried out by suitably qualified person(s) with emission testing results, comparison of results with EPL limits and any required mitigation measures
- Compliance Report with information on any non-compliances, report actions, incidents and complaints submitted annually to DPIE and posted on the Regain website within 60 days of submission after providing DPIE with not less than seven days notice prior to posting on the website
- Annual EPL Return to EPA with information on operational environmental performance including complaints, non-compliances and emissions test results
- Annual Environmentally Hazardous Chemicals Act Licence Report to EPA setting out quantities and types of waste material processed, quantities of product produced, transporters of products, recipients of products, intended use of the products and emission test results.

14.2. Performance Review

Periodic performance reviews are conducted as follows:

- Regain operations coordination meetings (weekly).
- Tomago Aluminium and Regain review meetings (bi-monthly)

14.3. Audit

The Regain organisation includes a Safety, Environment and Quality Systems Officer who reports to the Managing Director. This person is responsible for ensuring that the OEMP complies with AS/NZS ISO 45001 safety management systems standard and for periodic internal audits.

Periodic review of operations systems such as housekeeping and training are carried out on not less frequent than six monthly cycle. Annual audits are conducted for compliance of this Plan with Tomago Aluminium, statutory and regulatory requirements and for overall operational compliance with this OEMP.

A Hazard Audit is undertaken within 12 months of commencement of operation and then every five years as required under Project Approval MP06_0050 MOD 2. The audits must be carried out by a suitably qualified person approved by the DPIE Planning Secretary. The audits must include a review of the Safety Management System. A report for each audit with a program for implementation of recommendations must be submitted to DPIE within one month of the audit.

An Independent Audit conducted in accordance with the methodology set out in Independent Audit Post Approval Requirements (Department 2018) must be carried out within 52 weeks of commencement of operation and then at intervals no greater than three years. A separate response document is prepared for the Independent Audit Report. The Independent Audit Report and the response document are submitted to DPIE. The Independent Audit Report is posted on the Regain website within 60 days of submission after providing DPIE with not less than seven days notice prior to posting on the website.

Audits are carried out by appropriately trained and experienced people employed by independent organisations. The operations systems audits are procured by the Regain Operations Manager. The Hazard Audits and the Independent Audits are procured by the Regain NSW Regional Manager.

14.4. Management Review

Management reviews of this OEMP including its appropriateness and effectiveness are conducted on not less frequently than every twelve months and, otherwise, within three months of:

- Submission of a Compliance Report under Condition 28C (MP06_0050 MOD 2)
- Submission of an incident report under Condition 27 (MP06_0050 MOD 2)
- Submission of an Independent Audit under Condition 29 (MP06_0050 MOD 2)
- The approval of any modification of the conditions of approval (MP06_0050 MOD 2)
- In response to a direction from the Planning Secretary under Condition 26I requiring review (MP06_0050 MOD 2).

A particular function of management reviews is to rigorously pursue opportunities for improvement of environmental management systems and performance and to demonstrate management commitment to continual improvement. Management reviews of strategies, programs and other plans associated with or relating to this OEMP may be required in conjunction with management review of this OEMP.

15. Document Control

This OEMP document is a controlled document within the RMS and is managed as a controlled object in the LMS. The controlled version of this document is the electronic version in the LMS.

Approved versions of this document are issued under the authority of the Regain Managing Director.

The major revisions of this OEMP are listed in the following table.

Table 8 – Operational Environmental Management Plan – Revision History

Revision	Date	Purpose
0	31 Oct 2002	Initial issue (as document 116_5C021)
1	14 Dec 2003	Revised & reissued for proposal to TAC
2	30 Aug 2004	Revised for organisation structure changes
3	29 Dec 2005	Revised for changed methods of hazard control
4	14 Nov 2013	Revised for updated approach to hazard and risk management and new Environment Protection Licence
5	3 Mar 2015	Updated version with issuance of the Stormwater Management Plan
6	25 July 2017	Revised to reflect revised facility design, updated Stormwater Management Plan, Erosion and Sediment Control Plan, new Regain Management System references and hazardous substances section reflecting GHS
7	12 Apr 2018	Revised to include changes following management review.
8	12 Jun 2020	Revised to include changes following DPIE MP06_0050 MOD 2 approval

16. Glossary of Terms and Abbreviations

16.1. Definitions of Key Terms

<i>Change Control</i>	A systematic approach to managing changes to a product or system or product.
<i>Configuration Management</i>	The process of identifying and documenting the characteristics of the structures, systems and components of a process facility, and of ensuring that changes to these characteristics are properly developed, assessed, approved, issued, implemented, verified, recorded and incorporated into the facility documentation.
<i>Due Diligence</i>	Appropriate, sufficient, or proper care and attention (Oxford English Dictionary)
<i>Equipment</i>	Single parts of a plant, such as feeders, conveyors, crushers, mills, drive motors, valves, field instruments, control devices (adapted from ISO 10628:1997).
<i>Hazard</i>	A source of potential harm or damage which can cause a loss such as injury to people, damage to their health, damage to the environment, damage to equipment or bad quality production
<i>Hazard & Loss Prevention Analysis (HAZLEP)</i>	An analysis of the hazards, potential loss events and controls required to eliminate risk associated with the hazards or, if the risk cannot be eliminated, then the controls required to limit the extent of damage or harm if a loss event actually occurs
<i>Hazard & Operability (HAZOP) Study</i>	An analysis of the hazards and operability of a process plant using a group of people with knowledge of the plant. A HAZOP identifies hazards and defines controls required to eliminate or mitigate risk.
<i>Incident</i>	An occurrence or set of circumstances that causes, or threatens to cause, harm.
<i>Lifecycle management</i>	Process of managing the lifecycle of objects. A typical object lifecycle involves stages such as initiation, preparation (including design), verification, review and release for use (approval).
<i>Loss</i>	Any harm or damage including injury to people, harm to the environment, damage, breach of law, disruption to production or decrease in financial value
<i>Loss event</i>	An event that could cause loss.
<i>Plant</i>	The fixtures, implements, machinery and apparatus used in carrying out any industrial process (Shorter Oxford English Dictionary).
<i>Practicable</i>	Capable of being put into practice, carried out in action, effected, accomplished, or done; feasible (Oxford English Dictionary)
<i>Precaution</i>	A measure taken beforehand to ward off evil, or to ensure a good result (Oxford English Dictionary)
<i>Process</i>	Sequence of chemical, physical or biological operations for the conversion, transport or storage of materials or energy (ISO 10628:1997).
<i>Process plant</i>	Structures and equipment necessary for performing a process.
<i>Process Control</i>	Monitoring, controlling and protecting process and equipment.
<i>Requirement</i>	A statement of the particular needs to be satisfied, or essential characteristics that are required of a product material, method, process, service, system, or body of work.
<i>Review</i>	Look over with a view to correction or improvement and ensuring that significant opportunities, issues and risks have been addressed

16.2. Acronyms and Abbreviations

HAZLEP	Hazard & Loss Prevention Analysis
HAZOP	Hazard & Operability (Study)
LMS	Lifecycle Management System
P&ID	Process and Instrumentation Diagram
PLC	Programmable Logic Controller
RMS	Regain Management System
SCADA	Supervisory Control and Data Acquisition System
SPL	Spent Potlining

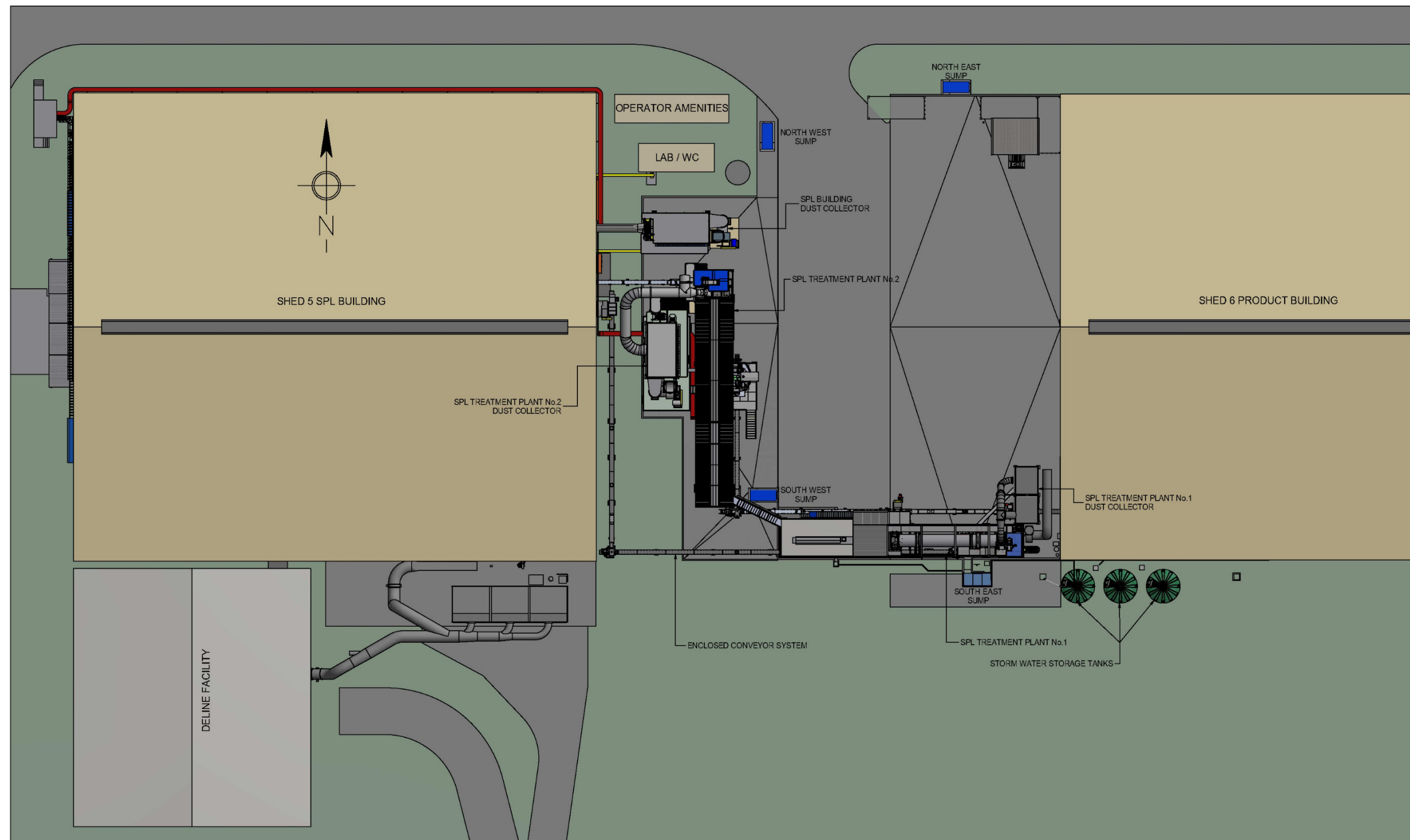
Appendix A - Location Map

The Tomago Smelter is located at Tomago, 25 km North of Newcastle in the NSW Hunter Valley.

The SPL Facility is located in the south western area within the Tomago Aluminium Smelter site.



Appendix B – Stormwater Management System Layout

[illegible]

Appendix C - Emergency Contact Numbers /Email

Tomago Aluminium Security	(02) 4966 9999 Extension 9999
Department of Planning, Industry & Environment	compliance@planning.nsw.gov.au
Environment Protection Agency - Newcastle Office - Environment Line	(02) 4921 2900 131 555
Port Stephens Council	(02) 4980 0255
Hunter Water	1300 657 000
Regain - Operations Manager - Operations Support Manager - NSW Manager - Managing Director - Central Office	0409 460 227 0418 341 756 0417 556 831 0417 323 024 (03) 9514 8600

Appendix D – Environmental Management Policy

Environmental Policy



It is Regain's objective to operate in harmony with the surrounding environment, environmental regulation and environmental management expectations of our Clients and our Customers.

The environment, in which we live and work, sustains us and it is our duty to protect it and enhance it.

Regain operates with continual improvement framework for setting and reviewing environmental objectives and targets that underpin the objective of this Policy.

It is Regain policy to operate environmental management systems that comply with the requirements of the International Standards Organisation ISO14001 Environmental Management Systems Standard. Regain has a systematic, documented approach to environmental management that describes the Environmental Management System, management responsibility and the requirements for organizational coordination. Key elements of the Environmental Management System are:

- Policy approved by senior management that provides the guiding principles for management of the Regain organization
- Environmental Management Standards that define the minimum set of requirements that support a coherent approach to quality across the Regain organisation
- A set of complementary Plans that set out Client and Customer requirements, particular objectives, how those objectives will be achieved and organisational responsibilities
- Regular audit to verify conformance with policy, standards and the plans.

Regain environmental management systems operate within the Regain Management System.

Each person working with Regain is to learn about the environmental aspects of the work in which they are involved. They are expected to take responsibility for their area of work and to ensure that environmental risks are managed as called for by the systems of work.

Regain environmental management systems are reviewed periodically by Regain management to ensure their continued relevance and effectiveness in meeting regulatory, Client and Customer needs.

A handwritten signature in blue ink, appearing to read "B. J. Cooper".

For and on behalf of Regain
B. J. Cooper, Director