

ENFORCEABLE UNDERTAKING

Part 11, *Work Health and Safety Act 2011*

The commitments in this undertaking are offered to the regulator by

Sun Metals Corporation Pty Ltd
(the person)

ABN 97 074 241 982

COMMENCEMENT OF UNDERTAKING

This enforceable undertaking is given on the day and date that it is accepted and signed by the regulator. The undertaking and its enforceable terms will commence to operate as a legally binding commitment on the part of the person from the date it is given.

DEFINITIONS

Contravention means an alleged contravention

OIR means the Office of Industrial Relations.

OHSMS means an Occupational Health and Safety Management System

person means an individual who or a legal entity which has a duty under the *Work Health and Safety Act 2011*, the *Electrical Safety Act 2002* or the *Safety in Recreational Water Activities Act 2011* and can give a written undertaking. The term includes individuals, each partner in a partnership, corporations, individuals or corporations as trustees of trusts, statutory corporations, public authorities, the State of Queensland, the Commonwealth of Australia and other Australian states and territories.

regulator means the Deputy Director-General, Office of Industrial Relations, being the person appointed by the Governor in Council as regulator under the Safety Acts.

safety Acts means *Work Health and Safety Act 2011*, *Electrical Safety Act 2002* and *Safety in Recreational Water Activities Act 2011*

SMC means Sun Metals Corporation Pty Ltd

WHS undertaking or undertaking or enforceable undertaking means a written undertaking given under Part 11 of the *Work Health and Safety Act 2011* by a person in connection with a matter relating to a contravention or alleged contravention by the person of the *Work Health and Safety Act 2011* and includes all of the contents of that document including the general information, general and enforceable terms.

PRIVACY STATEMENT

The OIR respects your privacy and is committed to protecting personal information. The information provided in this document is for the purpose of an undertaking given to the regulator under Part 11 of the *Work Health and Safety Act 2011*, Part 3 of the *Electrical Safety Act 2002* or Part 4 of the *Safety in Recreational Water Activities Act 2011*. This information will be managed within the requirements of the current state government privacy regime.

The OIR may publish the undertaking and information contained in it for purposes identified in the undertaking or for other appropriate purposes in publications such as newspapers and on its website. The OIR may be required to disclose personal information to other agencies such as the Queensland Police Service and WorkCover in accordance with enforcement activities that may be conducted as part of an investigation. Information on our privacy policy is available at www.worksafe.qld.gov.au.

SECTION 1: GENERAL INFORMATION

1.1 Details of the person giving the undertaking

Nominated person:	Sun Metals Corporation Pty Ltd
Street address:	1 Zinc Avenue, Stuart, Townsville, Queensland, 4811
Mailing address:	PMB 10, Townsville MC, Queensland, 4810
Telephone:	07 4726 6600
Email address:	admin@sunmetals.com.au
Legal structure:	Proprietary Company
Type of business:	Zinc Refinery
Commencement date:	1996
Workers:	Full time: 294
	Part time: 0
	Casual: 0
Products and services:	SMC produces a Special High Grade of Zinc metals. Sulphuric acid, although a secondary product, is also an important part of Sun Metals' production and is sold to clients for use in the production of fertilisers and other industrial uses. Other by-products such as zinc ferrite and copper are also produced and sold to the international and domestic market.
Comments:	<p>SMC is the Australian subsidiary of the Korea Zinc Company Limited. Korea Zinc produces 10 per cent of the world's zinc from plants in Korea, the USA and Australia.</p> <p>Korea Zinc is recognised as one of the world's foremost companies in the development and application of world-best technologies. Sun Metals has utilised this technology and is one of the world's most advanced plants and one of the largest zinc refineries.</p> <p>SMC is a strong contributor to the local economy and employs nearly all of its staff and contractors, primarily from the local community.</p>

1.2 Detail the contravention

Workplace Health and Safety Queensland (WHSQ) alleges one offence contrary to section 32 of the *Work Health and Safety Act 2011* (Qld) (WHS Act). It is alleged that on 16 May 2015 at Stuart in the State of Queensland, SMC being a person who had a health and safety duty under section 19(1) of the WHS Act failed to comply with the duty so far as reasonably practicable and that failure exposed a worker, to a risk of death or serious injury.

It is alleged that SMC did not ensure, so far as reasonably practicable, the health and safety of a worker in that it failed to:

- identify, assess and manage risks associated with movement of the hydraulic arm of the automated positioner;
- provide and maintain a work environment without risks to health and safety;
- provide and maintain a safe system of work;

- d) provide adequate information, training, instruction or supervision necessary to protect workers from risks to their health and safety arising from work carried out as part of the conduct of the business or undertaking;
- e) maintain control measures to protect workers from hazards associated with automated plant;
- f) review and revise control measures;
- g) ensure that workers did not access the area in the immediate vicinity of automated plant, namely the positioner where it could start up without warning;
- h) ensure that workers did not climb over or under the wagon couplings inside the area where the positioner was located to access the eastern or western side of the railway;
- i) ensure workers crossed the railway line only by using the overhead walkway;
- j) ensure that the area where the positioner was located was barricaded to prevent entry to the area;
- k) provide adequate warning of automated start and movement of the hydraulic arm of the positioner;
- l) ensure there was positive two-way communication at all times between the upstairs and downstairs operators, particularly when working in different areas or when not in-line of sight with one another;
- m) ensure that the upstairs operator was able to observe the downstairs operator on the western side of the tippler area prior to switching the tippler into automatic mode;
- n) ensure workers are adequately competent to carry out duties in the tippler facility and are suitably supervised during training;
- o) provide adequate information to the worker to ensure the worker, in the course of their work, was able to identify existing hazards and adequately assess consequential risks;
- p) have regard to the provisions of the How to Manage Work Health and Safety Risks Code of Practice 2011 and the provisions of the Managing Risks of Plant in the Workplace Code of Practice 2013 approved under the Work Health and Safety Act 2011;
- q) provide a standard of workplace health and safety equivalent to, or higher than that standard required in the said Codes of Practice.

1.3 Detail the events surrounding the contravention

On 16 May 2015, at approximately 5:45am, the worker commenced their shift in the downstairs section of the Tippler, to assist in the unloading of a train carrying zinc concentrate.

At approximately 7:46am, a lid lifter fault was identified, the worker was instructed over the two way radio (by a co-worker) to enter the Tippler to determine the nature of the fault. The worker travelled to the Eastern side of the Tippler. After observing the lid lifter in operation, the worker took steps to disengage a stuck clamp to allow the lid lifter to operate. The worker advised their co-worker that the fault had been fixed.

On being notified that the fault had been fixed, the co-worker recommenced the operation of the Tippler. Shortly after recommencing the Tippler operations, a fault was recorded with the Positioner Arm. The co-worker tried to contact the worker over the two-way radio, but was unable to contact the worker.

The co-worker went to look for the worker. On nearing the positioner arm, the co-worker saw that the worker was trapped between the positioner arm and the coupling of the two wagons of the train.

1.4 Detail the enforcement notices issued that relate to the contravention detailed in term 1.2

☒ Not Applicable

DATE ISSUED	NOTICE TYPE	NOTICE NUMBER	CONTRAVENTION OR PROHIBITED ACTIVITY	ACTION TAKEN IN RESPONSE TO NOTICE

1.5 Detail the injury sustained or illness suffered by worker/s or other/s as a consequence of the contravention detailed in term 1.2

As a result of the incident the worker sustained fatal crush injuries.

1.6 Detail the workers' insurance benefits paid to the worker/s who sustained injury or suffered illness as detailed in term 1.5 or to the beneficiaries of deceased persons

The person/s detailed is:

- an employee/s of the entity ☒
- a self-employed person/s ☐
- other ☐
- not applicable ☐

SMC was insured under the terms of the statutory workers' compensation insurance scheme operating in Queensland under the *Workers' Compensation and Rehabilitation Act 2003* (Qld). The family of the worker received compensation pursuant to the Act.

1.7 Detail the support provided or proposed by the person to the injured worker/s, other/s or families

DATE	DESCRIPTION OF SUPPORT	COMMENTS
16 May 2015	SMC visited the worker's family to determine what support and assistance they require	As a result of meeting with the family, SMC took steps to personally return the worker's car and personal belongings.
24 May 2015	SMC made a direct contribution to cover the funeral expenses of the worker	
14 May 2015	SMC provided the worker's remuneration to 16 May 2015 to the worker's partner.	

14 May 2015	SMC provided the worker's partner with the equivalent to the worker's remuneration as if the worker had worked to the end of May 2015	
22 May 2015	SMC paid the worker's account outstanding overtime (worked after May pay run).	
22 May 2015	SMC paid the worker's accrued but untaken annual leave to the worker's account	
May 2015	SMC offered and arranged for the worker's family to have confidential access to experienced counsellors	SMC understands that this assistance was not used by the family.

1.8 Detail any current OHSMS implemented and maintained by the person

SMC have an existing OHSMS which is maintained by the Health and Safety Department in consultation with management and the workforce.

At the time of the incident occurring SMC had in place an occupational health and safety management system which included:

- a) Induction and training programs for all new employees;
- b) Ongoing training programs for employees;
- c) Pre-start meetings at the beginning of each shift;
- d) Toolbox talks as required to address safety issues and onsite incidents;
- e) Safe operating procedures;
- f) Job Safety and Environmental Analysis required for new tasks;
- g) Risk assessments for activities carried out at the refinery;
- h) Health, safety, environment and quality meetings;
- i) Health and safety representatives

With respect to SMC's safety management system, SMC has the following certificates of accreditation:

- a) OHSAS 18001:2007 – Occupational Health and Safety
- b) AS/NZS 4801:2001 – Occupational Health and Safety Management System
- c) AS/NZS ISO 14001 - Environmental Management Systems
- d) AS/NZS ISO 9001 - Quality Management Systems.

1.9 Detail the level of auditing undertaken on the OHSMS referred to in term 1.8, including compliance audits and audit frequency

SMC's OHSMS is subject to regular external and internal audits.

As third party external certified management systems, SMC is subject to external surveillance audits from its third party certifier and auditor, DNV GL, twice per year (once in the first six month period, and

again in the second six month period). In addition, DNV GL conduct recertification audits every three years.

Separately, in connection with SMC's Major Hazard Facility licence, SMC is regularly and routinely audited by the Hazardous Industries and Chemicals Branch (HICB) of WHSQ. SMC is also required to make tri annual presentations about SMC's compliance with any actions identified in HICB's audits.

SMC's scheduled internal audits are conducted every six (6) months. SMC also conducts regular unscheduled audits of specific operational areas.

1.10 Detail the consultation undertaken or proposed to be undertaken, in relation to this undertaking

In preparing the Undertaking, SMC created a working group consisting of the management, human resources and safety team to lead discussions about what the terms of the undertakings may be.

Future consultation will include:

- a) notifying all workers regarding the Undertaking via pre-start meetings;
- b) discussion in health, safety, environment and quality meetings;
- c) discussion in senior management meetings.

1.11 Detail the rectifications to the workplace or work practices made as a result of the contravention and events detailed in terms 1.2 and 1.3 and the enforcement notices issued as detailed in term 1.4

On 17 June 2015 SMC introduced to all Operators a Toolbox Talk - "Work Practices -Tippler " which set out the work practices that were to be followed in the Tippler.

On 17 September 2015, SMC rolled out an updated Toolbox to reflect the revised work instructions. These work instructions are as follows:

- a) Minor adjustments to Eastern and Western side lids through use of the metal bar may occur at the Tippler provided the following is strictly adhered to:
 - i. Downstairs Operator remains on the Eastern or Western side of the Trial Barrier Fencing (outside the fencing);
 - ii. The realignments of lids must only be performed from the platforms provided on the barrier fencing on both the Eastern and Western side;
 - iii. The realignments of lids must not occur at any time while the Positioner is moving from the Northern limit to the Southern Limit at the Wheels Grippers or while the Positioner Arm is raising or lowering into position at the Northern or Southern limits.
- b) Where necessary, all other lid adjustments are to occur in the rail loop after the train has left the Tippler, as per the instructions provided for in the Toolbox Talk dated 17 June 2015.
- c) Major lid mis-alignment must be addressed using the lid lifter in the Tippler.

In addition to this SMC took the following steps:

- a) While there has always been four bars available for use and accessible to Operators at the Tippler, SMC has provided a designated bar location to ensure that there is a minimum of two metal bars (one on the Western side and one on the Eastern side of the track) available for use at all times;

- b) Reviewed the programming of the Klaxon Alarm and confirmed the Klaxon Alarm sounds at all times when the Positioner arm lowers;
- c) Consulted with Aurizon and implemented barrier fencing on the Eastern and Western side of the Tippler, including the installation of a fortress key (capture) system to prevent access to the positioner arm;
- d) Upgraded the cameras inside the Tippler and installed eight (8) CCTV cameras to operate inside the Tippler and along the rail corridor towards the Positioner. The CCTV cameras are connected to a server and all footage is recorded and kept;
- e) Reviewed the Tippler Operations, including the review and consolidation of the SOP's that apply. As a result of this review 12 SOP's have been condensed into one (1) SOP which is underpinned by a risk assessment. SMC has consulted with Operators with respect to the risk assessment;
- f) Upgraded the Control Room Operators Desk to allow visibility of the downstairs control panels and North towards the Positioner; and
- g) Installed raised platforms on both the Eastern and Western Side to allow better ergonomics for operators when adjusting lid clamps.

Description	Cost
Installation of barrier, raised platforms and fortress key (capture) system	\$ 105,805
Installation of additional CCTV cameras and recording system	\$ 38,201
Upgrades to the Control Room Operators Desk	\$ 20,570

Total amount spent on rectifications

\$164,576

There were further additional costs associated with development and implementation of these rectifications and other initial temporary measures, as well as the time of SMC personnel implementing these rectifications and other measures outlined above, including the:

- a) changes to the Klaxon;
- b) manufacture of the addition bars; and
- c) installation of the new designated bar areas.

However, it is difficult to place a monetary figure on this time and cost because they were internal measures.

SECTION 2: GENERAL TERMS

The person acknowledges and commits to the general terms set forth in the sub-terms below.

2.1 Acknowledgement that the regulator alleges a contravention occurred as detailed in term 1.2

It is acknowledged that WHSQ has alleged that SMC has contravened section 32 of the WHS Act and failed to comply with its duty under section 19(1) of the WHS Act.

- 2.2 Statement of regret that the contravention occurred and the reasons the person considers this undertaking is a more appropriate response to the contravention than a court imposed sanction**
- SMC, its officers and employees have all been deeply affected and impacted by the incident.
- SMC regrets that the incident on 16 May 2015 occurred. SMC has offered its sympathy to the family of the worker and has taken steps to ensure that co-workers who have been affected by the incident have felt supported and assisted. This included counselling support, access to additional EAP, altered work arrangements, briefings and personal engagement with affected employees.
- SMC considers that this undertaking is a more appropriate response to the contravention than a court imposed sanction as there are longer-term benefits that could be achieved from the terms of the undertaking. These benefits will include tangible, organisation change, improved safety culture and safety benefits that may not be realised as part of, or following a court sanction. The benefits will be shared across our company, our industry and within the communities where we operate.
- SMC is committed to taking, and has taken, all reasonably practicable steps to ensure that the same or similar incident does not occur again.
- 2.3 Statement of commitment that the behaviour, activities and other factors which caused or led to the contravention has ceased and will not reoccur**
- SMC is committed to discharging its obligations under the WHS Act and is committed, so far as reasonably practicable, ensuring the health and safety of all workers and those who may be affected by its business or undertaking.
- SMC has taken the actions set out in part 1.11 above to ensure, so far as reasonable practicable, that the risk that gave rise to the alleged contravention is managed and will not occur in future.
- 2.4 Acknowledgment of the guidelines published by the regulator for the acceptance of an undertaking**
- I have read and understood:
- Guidelines for the acceptance of an enforceable undertaking*
- Version: 1 Dated: 8 January 2016
- 2.5 Acknowledgement that this undertaking may be published and publicised**
- 2.5.1 SMC acknowledges that the undertaking may be published on the OIR's website and referenced in OIR material.
- 2.5.2 SMC acknowledges that the undertaking may be publicised in newspapers.
- 2.6 Statement of the person's ability to comply with the terms of this undertaking and meet the projected costs of the activities**
- 2.6.1 SMC has the financial ability to comply with the terms of this undertaking and have provided evidence by way of a letter from the Chief Financial Officer with this undertaking to support this declaration.
- 2.6.2 In the event of impending liquidation or sale of the entity, SMC will advise OIR of the relevant circumstances and its capacity to comply with the outstanding terms of this undertaking.
- 2.7 Statement regarding person's relationship with any corporations, officers, employees, contractors, proposed beneficiaries of donations or scholarship or other recipient of financial benefit contained in this undertaking**
- SMC is a supporter of WHSQ's Safe Work Month.

SMC otherwise has no relationship with the parties who receive benefits under this Undertaking, other than as an employer and member of the industry and community.

2.8 Statement regarding Intellectual Property Licence

SMC grants OIR a permanent, irrevocable, royalty-free, world-wide, non-exclusive licence to use, reproduce, publish, distribute, electronically transmit, electronically distribute, adapt and modify any materials developed as a result of this undertaking.

2.9 Acknowledgement that the person may be required to provide a statutory declaration

OIR has requested a statutory declaration outlining details of any prior convictions¹ or findings of guilt under the safety Acts.

☐ YES

☒ NO

The statutory declaration is attached (if applicable)

☐ YES

☐ NO

2.10 Statement of commitment from the person to participate constructively in all compliance monitoring activities for this undertaking

- 2.10.1 It is acknowledged that responsibility for demonstrating compliance with this undertaking rests with the person.
- 2.10.2 Evidence to demonstrate compliance with the terms will be provided to OIR by the due date for each term.
- 2.10.3 The evidence provided to demonstrate compliance with this undertaking will be retained by the person until advised by the regulator, that this undertaking has been completely discharged.
- 2.10.4 It is acknowledged that any failure to meet the due date for an enforceable term will result in the matter being escalated and may lead to enforcement action.
- 2.10.5 It is acknowledged that OIR may undertake other compliance monitoring activities to verify the evidence and compliance with an enforceable term, and cooperation will be provided to OIR.
- 2.10.6 It is acknowledged that OIR may initiate additional compliance monitoring activities, such as inspections, as considered necessary at OIR's expense.
- 2.10.7 It is acknowledged that details of all seminars, workshops and training conducted by a non-registered training provider must be notified to OIR, by email, at least one week prior. Notification should include time, date, location and the trainer/facilitator.

2.11 A commitment by the person to perform activities that will ensure the ongoing effective management of risks to health and safety in the future conduct of its business or undertaking

SMC and its officers are committed to meeting their obligations under the WHS Act and ensuring, so far as is reasonably practicable, that risks to health and safety are managed through SMC's OHSMS, which is specifically tailored to its operations.

¹ Subject to any local legal constraints such as spent conviction legislation.

SMC and its officers seek to ensure the ongoing effective management of risks to health and safety in the future conduct of its business or undertaking through:

- a) review and audit of its OHSMS, in accordance with part 3.3 below;
- b) implementation of the activities agreed in this Undertaking;
- c) continued employment of a team of dedicated WHS professionals to assist in enforcement and ongoing improvement of current and future OHSMS.

SECTION 3: ENFORCEABLE TERMS

The person acknowledges all activities set forth in the enforceable terms below must be auditable and include a date for completion and an estimated cost for each activity.

The person commits to performing the activities below diligently, competently and by the respective completion date.

3.1 A commitment by the person to disseminate information about this undertaking to workers, and other relevant parties

Dissemination will be achieved by doing the following:

- a) specific toolbox on the enforceable undertaking, including the associated benefits for workers, the industry and the community;
- b) consultative discussion with Health and Safety Representatives and Work Health and Safety Committees;
- c) letter to the family of the deceased worker discussing the enforceable undertaking and the commitments SMC has made through the enforceable undertaking; and
- d) letter to Aurizon as the other entity directly connected to the incident, outlining the commitments SMC has made as part of the undertaking.

Dissemination will occur within 3 months of the Undertaking being accepted.

3.2 Activities to be undertaken to promote the objects of the safety Acts that will deliver benefits for workers/others

ACTIVITIES		COST	TIMEFRAME
3.2.1	<p>Integrated electronic permit to work system</p> <p>SMC will acquire a licence and maintain a licence to integrate electronic permit to work software system into its operations.</p> <p>This will involve a web-based permit to work software system that will replace SMC's current paper based process to improve control of permits, particularly in relation isolations, hot work, confined space, working at heights and shutdowns.</p> <p>Isolations plans for each item of plant or equipment will be locked into the system based on pipe and instrument drawings (P&ID). Isolation plans will be</p>	<p>Costs for this item will not be less than \$760,000.</p> <p>This amount will include costs for:</p> <ul style="list-style-type: none"> software licensing and maintenance support fees for 5 years; hardware costs, including tag 	As per 3.2.1.a to 3.2.1.e below.

	<p>developed over a period by SMC's Continuous Improvement Coordinators (CICs), the employees tasked and experienced with the development and implementation of isolation permits, prior to the incorporation of the system. SMC will consider appropriate regulatory and approval requirements for each isolation procedure. Isolation tags are printed, before commencing the isolations. The isolation tags are printed with barcodes and plant and equipment details and the condition of the isolation. Once the plant or equipment is isolated an employee must scan the relevant tag to confirm isolation. If the employee scans the incorrect isolation tag, it will warn the employee and not allow the permit to be opened.</p> <p>The electronic permit to work software's shutdown function will give Sun Metals improved ability to safely plan the six (6) week and bi-annual shutdowns. For six (6) week shutdowns, which have the same tasks each time, SMC will be able to utilise the shutdown function to ensure identified controls to manage risks are consistently applied during each shutdown.</p> <p>The provider of the electronic permit to work software will provide training to all users. They will also provide "super user" training to SMC employees that will be the champions of the system in each SMC Department. In addition, the provider of the electronic permit to work software will provide a training manual for the system, which SMC will incorporate into the SMC Isolation of Plant and Equipment Training Manual. The cost of training is incorporated in project services cost on implementation and includes "train the trainer" education.</p> <p>SMC will also engage Gallagher, a specialist contractor in integrated security and access systems, to fully integrate the electronic permit to work system to allow permits, clearances and access systems to integrate. Licensing costs alone for this system, which will be bespoke software built to accommodate the SMC system will be approx. \$80,000.</p> <p>Benefit: As an integrated safe system of work, it incorporates planning, risk assessment, hazard conflict warning as well as isolation management and permitting. It provides real time conflict data on current types of permit work occurring and will be adapted to interface with SMC's Maintenance Management Software, Contractor Management and Incident Management System. The system will be of benefit to workers given that it will identify conflicts and ensure that isolations can be monitored and complied with, contributing to worker safety.</p> <p>The system will remove elements of human interface and the current paper-based process and</p>	<p>printers, scanners, readers and monitors;</p> <ul style="list-style-type: none"> • professional services fees, including training and attendance on site and project work; • expenses; • Gallagher integration costs of approximately \$80,000. <p>The breakdown of costs between different phases of this item is subject to the outcome of a tender process, but the total cost for this item will not be less than the amount stated above.</p>	
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	<p>the risk of human error / omission in decision making. As such, the initiative is above ordinary compliance with the safety Acts, which do not require an OHSMS to be integrated and automated in this way. The integration and creation of electronic processes will remove human analysis and risk of error, through not only permit to work, but also procedure and JSEA compliance.</p> <p>Details of the activities, costs and timeframes are included in 3.2.1.a to 3.2.1.e below.</p>		
3.2.1.a	<p>Integrated electronic permit to work system: Project discovery phase</p> <p>The first stage of implementing the integrated electronic permit to work system is a project discovery phase to test the alignment of SMC procedures with the system.</p> <p>As mentioned in 3.2.1 above, the permit to work system will be fully integrated, and this phase will allow for planning to occur as a preliminary step, before installation and commissioning as detailed in 3.2.1.b below.</p> <p>Both the project discovery phase and installation and commissioning as detailed in 3.2.1.b below will be completed within 12 months of acceptance of this undertaking.</p>	See 3.2.1 above.	Project discovery phase to be completed within 12 months of the acceptance of this undertaking
3.2.1.b	<p>Integrated electronic permit to work system: Installation and commissioning</p> <p>The second stage of implementing the integrated electronic permit to work system is the installation and commissioning stage, which will involve costs for hardware, project services including training, software costs, and other project costs and expenses.</p> <p>The implementation of the system will be evidenced through the development of new procedures and the associated training materials, as well invoicing of the first licence fee as detailed in 3.2.1.c below.</p> <p>The commissioning date of the system will be notified in writing to OIR within 5 business days following commissioning to facilitate monitoring of compliance with items 3.2.1.c, 3.2.1.d and 3.2.1.e below.</p>	See 3.2.1 above.	<p>System to be installed and commissioned within 12 months of acceptance of this undertaking.</p> <p>OIR to be notified of commissioning date of system within 5 business days following commissioning</p>
3.2.1.c	<p>Integrated electronic permit to work system: Payment of first annual licence fee</p> <p>Once commissioning of the integrated electronic permit to work system is completed, SMC will pay an annual software maintenance and support fee. The first annual fee will be payable once commissioning is complete and evidenced by invoices.</p>	See 3.2.1 above.	On commissioning of the integrated electronic permit to work system as referred to in 3.2.1.b above.
3.2.1.d	<p>Integrated electronic permit to work system: Payment of second annual software</p>	See 3.2.1 above.	12 months after commissioning

	maintenance and support fee Once commissioning of the integrated electronic permit to work system is completed, SMC will pay an annual software maintenance and support fee. The second annual fee will be payable on the first anniversary of commissioning and evidenced by invoices.		of the integrated electronic permit to work system as referred to in 3.2.1.b above.
3.2.1.e	Integrated electronic permit to work system: Payment of third annual software maintenance and support fee Once commissioning of the integrated electronic permit to work system is completed, SMC will pay an annual software maintenance and support fee. The third annual fee will be payable on the second anniversary of commissioning and evidenced by invoices.	See 3.2.1 above.	24 months after commissioning of the integrated electronic permit to work system as referred to in 3.2.1.b above.
3.2.1.f	Integrated electronic permit to work system: Payment of fourth annual software maintenance and support fee Once commissioning of the integrated electronic permit to work system is completed, SMC will pay an annual software maintenance and support fee. The third annual licence fee will be payable on the third anniversary of commissioning and evidenced by invoices.	See 3.2.1 above.	36 months after commissioning of the integrated electronic permit to work system as referred to in 3.2.1.b above.
3.2.1.g	Integrated electronic permit to work system: Payment of fifth annual software maintenance and support fee Once commissioning of the integrated electronic permit to work system is completed, SMC will pay an annual software maintenance and support fee. The third annual fee will be payable on the fourth anniversary of commissioning and evidenced by invoices.	See 3.2.1 above.	48 months after commissioning of the integrated electronic permit to work system as referred to in 3.2.1.b above.
3.2.2.a	Filter press automation and installation of additional engineering controls: Installation of automated drip trays <u>Overview of initiative</u> SMC will engineer, procure, install and commission a bespoke automation and engineering solution, which as a measure above ordinary compliance with the safety Acts, will supplement existing controls on the generation of hydrogen in the Leaching and Purification area of the SMC refinery with a further integrated engineering solution to remove the risk of spent leakage, identified currently through visual checks by an operator. The Leaching and Purification area undertakes a number of processes to extract compounds and remove impurities, including through reprocessing of filter cake and the addition of zinc dust. This process occurs in a repulping tank below the Leaching and	Installation of automated drip trays: \$394,211	Within 12 months of the acceptance of this undertaking.

	<p>Purification Filter Press (LPFP) area.</p> <p>As a result of the current design of the plant, there is a risk of spent solution leaking into the repulping tank from the LPFPs during cleaning processes, which are undertaken regularly. While SMC has processes and procedures to minimise that risk, as well as engineering controls in the form of a hydrogen extraction system to deal with any potential hydrogen buildup, the current design of the plant does not allow the risk of hydrogen generation to be removed.</p> <p>The proposed automation and installation of additional engineering controls would remove the risk of spent leakage, remove the risk of operator error by automating the LPFPs, improve visibility of any spent leakage from the LPFPs (allowing abnormal operating conditions and risks to safety to be more readily identified) and further reduce the risk of hydrogen generation to the safety of SMC employees through the installation of a new repulping tank outside of the LPFP building (to replace the current repulping tank underneath the LPFP building).</p> <p>The introduction of further engineering controls also presents a benefit for risk reduction for employees. The installation of a new repulping tank outside of the LPFP building removes the location of the tank outside the immediate work area, and outside of the LPFP building where employees are likely to be working.</p> <p>The installation process will be required to occur in phases, during regular shutdowns, given the need to take the relevant plant offline to undertake the works.</p> <p><u>Installation of automated drip trays</u></p> <p>The first aspect of the initiative is the installation of seven stainless steel plates under the LPFPs. These plates will automatically move between the LPFPs and the hoppers below them during spent and condensate cleaning, to prevent leakage of spent from the LPFPs into the repulping tank, thereby preventing hydrogen generation. The seven LPFPs will each have one set of plates that will be installed.</p> <p>The work involved will include in the installation of the drip trays, the modification of the current wooden deck and the installation of an auto winch system.</p>		
3.2.2.b	<p>Filter press automation and installation of additional engineering controls: Automation of LPFPs</p> <p>In addition to the installation of automated drip trays as set out in item 3.2.2.a above, SMC will also automate the LPFPs, to remove the need for operator intervention and presence in the vicinity of the LPFPs during operation. This initiative, which is above ordinary compliance with the safety Acts, will not only remove workers from the risk area, but will also reduce the risk of hydrogen generation which</p>	Automation of LPFPs: \$236,259	Within 12 months of the acceptance of this undertaking.

	<p>could result from operator error.</p> <p>The automated sequence will consist of four steps, in terms of Press Close, Spent Cleaning, Feeding and Press Open.</p> <p>The work involved will include the installation of auto valves (11 for each LPFP), auto sequencing, air lines and cabling.</p>		
3.2.2.c	<p>Filter press automation and installation of additional engineering controls: Separation of acid repulper tank</p> <p>In addition to the installation of automated drip trays and automation of the LPFP as set out in items 3.2.2.a and 3.2.2.b above SMC will also further reduce the risk of hydrogen generation to the safety of SMC employees through the installation of a new repulping tank outside of the LPFP building to replace the current repulping tank underneath the LPFP building. As mentioned above, the installation of a new repulping tank outside of the LPFP building is of benefit to employees from a risk minimisation perspective, given that any incident involving the repulping tank would therefore take place outside of the LPFP building where employees are likely to be working.</p> <p>This is a measure above ordinary compliance with the safety Acts, given the other existing controls and further proposed controls in the other items above.</p> <p>The work involved will include the installation of a new 60m3 acid repulper tank, the installation of an exhaust fan, pump, pipe line, and electrical equipment (pH meter, Level meter, H2 analysing, auto valve). This will have the benefit mentioned above.</p>	Separation of acid repulper tank: \$569,496	Within 12 months of the acceptance of this undertaking.
3.2.3.	<p>Operational Superintendents training package</p> <p>SMC will facilitate the 3 superintendents from its operational areas (Roasting, Leaching & Purification, and Electrolysis) to undertake a bespoke safety leadership program.</p> <p>This course will be developed by health and safety experts Dr Drew Rae and Professor Sidney Dekker of Griffith University, based on their practical Safety Science Innovation Lab framework.</p> <p>Benefit: This course is designed to help the operational superintendents identify and challenge preoccupations with process and compliance, and learn about resilience and how to improve safety culture.</p> <p>This will be of benefit to both the superintendents involved and the workforce generally, in emphasising and enhancing leadership on safety matters, beyond the steps required for legislative compliance.</p> <p>Evidence: The cost of this commitment will be met</p>	\$15,000	Within 12 months of the acceptance of this undertaking

	by funding the training course.		
3.2.4.	<p>Team Leader / Process Coordinator training package</p> <p>SMC has 21 Team Leaders and Process Coordinators and will facilitate their undertaking a Certificate IV in Work Health and Safety at TAFE Queensland North for up to 21 positions currently identified.</p> <p>Benefit: This course is designed to improve the operational team leaders' and process coordinators' understanding of the OHSMS and their role in establishing a safety culture.</p> <p>This will be of benefit to both the Team Leaders and Process Coordinators involved and the workforce generally, in emphasising leadership on safety matters, beyond the steps required for legislative compliance.</p> <p>Evidence: The cost of this commitment will be met by funding the training course.</p>	<p>\$28,350</p> <p>(21 equal instalments per student of \$1,350)</p>	<p>Within 18 months of the acceptance of this undertaking</p>
3.2.5.	<p>Exceptional safety culture development program SMC will work with prominent academics Dr Rae and Professor Dekker to develop a bespoke program to help develop a world class safety culture at SMC.</p> <p>"Leadership for Positive Safety Capacity" is a major education and research theme of Griffith University's Safety Science Innovation Lab. It has found that traditional attempts to control safety by focusing on investigating minor incidents, restricting unsafe behaviour, and preaching commitment to 'zero harm' often succeed only in shutting down open and frank conversations about safety. It makes it difficult for management to explore and understand the real reasons why work doesn't always happen as expected, for example why workers take unexplained or unnecessary shortcuts. Attempts to "improve safety culture" by promoting the importance of safety can create a work environment where workers are unable to share information about what goes wrong, and what needs to be done to make things do not go wrong in the future.</p> <p>Safety Science Innovation Lab provides tools and practices for managers and safety practitioners to get more involved in work, instead of trying to get workers more involved in safety. This creates a better shared understanding of the frustrations, variations, goal-conflicts and opportunities inherent in normal work.</p> <p>The program will allow SMC superintendents, safety practitioners and training team personnel to roll out a program to all workers that will help change the way workers engage with safety issues.</p> <p>Griffith University academics will spend</p>	<p>\$120,000</p>	<p>Within 2 years of the acceptance of this undertaking</p>

	<p>approximately 12 months studying SMC's operations. SMC operates multiple plants with similar operations. This provides an opportunity to study sources of variation between plants, and to identify which practices are most effective. A particular target of such investigation would be how individuals and teams decide that it is safe to commence potentially hazardous operations.</p> <p>Benefit: The program, as a measure in excess of minimum requirements, will help develop SMC's safety culture. It will promote appropriate consideration of risk and appropriate selection of safety precautions, without mandating overly bureaucratic processes that may reduce, rather than support worker mindfulness and task attentiveness.</p> <p>Evidence: The cost of this commitment will be met by invoices. SMC will maintain study records, program documents and attendance records to confirm all workers have attended.</p>		
3.2.6.	<p>Additional funds for above-compliance health and safety initiatives for HSEQ Committees</p> <p>SMC has three (3) HSEQ Committees operating across its three (3) operational areas: Roasting, Leaching & Purification and Electrolysis & Casting.</p> <p>SMC will provide funds for above-compliance health and safety initiatives developed by each of its three (3) HSEQ Committees and approved by management.</p> <p>Management approval will ensure that the initiatives proposed by the HSEQ Committees meet specific workplace safety requirements and provide health and safety benefits to employees over and above that provided by the OHSMS.</p> <p>Details of the activities, costs and timeframes are included in 3.2.6.a to 3.2.6.i below.</p>	As per 3.2.6.a to 3.2.6.i below.	As per 3.2.6.a to 3.2.6.i below.
3.2.6.a(i)	<p>Development / consultation in relation to above-compliance health and safety initiatives: Roasting HSEQ Committee (Year One)</p> <p>For the first year, within 3 months of the commencement of the Undertaking, the Roasting HSEQ Committee will be required to:</p> <ul style="list-style-type: none"> • engage with employees in the operational work unit to promote the identification of safety initiatives through workforce feedback • safety initiatives will be required to meet the following parameters: <ul style="list-style-type: none"> ○ additional employee training, education and awareness requested by employees for enhanced safety outcomes in the operational work area; ○ employee identified improvements in the 		Within 3 months of acceptance of this undertaking.

	<p>operational work area in relation to:</p> <ul style="list-style-type: none"> ▪ guarding ▪ signage ▪ mobile equipment ▪ isolation ▪ flooring ▪ lighting and illumination ▪ respirators 		
3.2.6.a(ii)	<p>Submission for management approval of above-compliance health and safety initiatives: Roasting HSEQ Committee (Year One)</p> <p>For the first year, within 6 months of the commencement of the Undertaking, initiatives developed in accordance with 3.2.6.a(i) will be submitted to Management for approval on demonstration of consistency with parameters above and enhanced safety.</p>		Within 6 months of acceptance of this undertaking
3.2.6.a(iii)	<p>Implementation and funding of above-compliance health and safety initiatives: Roasting HSEQ Committee (Year One)</p> <p>For the first year, once approved initiatives are to be implemented by the Roasting HSEQ Committee within 12 months of commencement of the Undertaking.</p> <p>The costs of the initiatives and the nature of the safety initiatives implemented will be evidenced by the proposals prepared by the Roasting HSEQ Committee and invoices.</p>	Total cost for Roasting HSEQ Committee for year one: \$20,000	Within 12 months of acceptance of this undertaking
3.2.6.b(i)	<p>Development / consultation in relation to above-compliance health and safety initiatives: Roasting HSEQ Committee (Year Two)</p> <p>For the second year, within 15 months of the commencement of the Undertaking, the Roasting HSEQ Committee will be required to:</p> <ul style="list-style-type: none"> • engage with employees in the operational work unit to promote the identification of safety initiatives through workforce feedback • safety initiatives will be required to meet the following parameters: <ul style="list-style-type: none"> ○ additional employee training, education and awareness requested by employees for enhanced safety outcomes in the operational work area; ○ employee identified improvements in the operational work area in relation to: <ul style="list-style-type: none"> ▪ guarding ▪ signage ▪ mobile equipment 		Within 15 months of acceptance of this undertaking

	<ul style="list-style-type: none"> ▪ isolation ▪ flooring ▪ lighting and illumination ▪ respirators 		
3.2.6.b(ii)	<p>Submission and management approval of above-compliance health and safety initiatives: Roasting HSEQ Committee (Year Two)</p> <p>For the second year, within 18 months of the commencement of the Undertaking, initiatives developed in accordance with 3.2.6.b(i) will be submitted to Management for approval on demonstration of consistency with parameters above and enhanced safety.</p>		Within 18 months of acceptance of this undertaking
3.2.6.b(iii)	<p>Implementation and funding of above-compliance health and safety initiatives: Roasting HSEQ Committee (Year Two)</p> <p>For the second year, once approved initiatives are to be implemented by the Roasting HSEQ Committee within 24 months of commencement of the Undertaking.</p> <p>The costs of the initiatives and the nature of the safety initiatives implemented will be evidenced by the proposals prepared by the Roasting HSEQ Committee and invoices.</p>	Total cost for Roasting HSEQ Committee for year two: \$20,000	Within 24 months of acceptance of this undertaking.
3.2.6.c(i)	<p>Development / consultation in relation to above-compliance health and safety initiatives: Roasting HSEQ Committee (Year Three)</p> <p>For the third year, within 27 months of the commencement of the Undertaking, the Roasting HSEQ Committee will be required to:</p> <ul style="list-style-type: none"> • engage with employees in the operational work unit to promote the identification of safety initiatives through workforce feedback • safety initiatives will be required to meet the following parameters: <ul style="list-style-type: none"> ○ additional employee training, education and awareness requested by employees for enhanced safety outcomes in the operational work area; ○ employee identified improvements in the operational work area in relation to: <ul style="list-style-type: none"> ▪ guarding ▪ signage ▪ mobile equipment ▪ isolation ▪ flooring ▪ lighting and illumination ▪ respirators 		Within 27 months of acceptance of this undertaking

3.2.6.c(ii)	<p>Submission for management approval of above-compliance health and safety initiatives: Roasting HSEQ Committee (Year Three)</p> <p>For the third year, within 30 months of the commencement of the Undertaking, initiatives developed in accordance with 3.2.6.c(i) will be submitted to Management for approval on demonstration of consistency with parameters above and enhanced safety.</p>		Within 30 months of acceptance of this undertaking
3.2.6.c(iii)	<p>Implementation and funding of above-compliance health and safety initiatives: Roasting HSEQ Committee (Year Three)</p> <p>For the third year, once approved initiatives are to be implemented by the HSEQ Committee within 36 months of commencement of the Undertaking.</p> <p>The costs of the initiatives and the nature of the safety initiatives implemented will be evidenced by the proposals prepared by the Roasting HSEQ Committee and invoices.</p>	Total cost for Roasting HSEQ Committee for year three: \$20,000	Within 36 months of acceptance of this undertaking.
3.2.6.d(i)	<p>Development / consultation in relation to above-compliance health and safety initiatives: Leaching & Purification HSEQ Committee (Year One)</p> <p>For the first year, within 3 months of the commencement of the Undertaking, the Leaching & Purification HSEQ Committee will be required to:</p> <ul style="list-style-type: none"> • engage with employees in the operational work unit to promote the identification of safety initiatives through workforce feedback • safety initiatives will be required to meet the following parameters: <ul style="list-style-type: none"> ○ additional employee training, education and awareness requested by employees for enhanced safety outcomes in the operational work area; ○ employee identified improvements in the operational work area in relation to: <ul style="list-style-type: none"> ▪ guarding ▪ signage ▪ mobile equipment ▪ isolation ▪ flooring ▪ lighting and illumination ▪ respirators 		Within 3 months of acceptance of this undertaking.
3.2.6.d(ii)	<p>Submission for management approval of above-compliance health and safety initiatives: Leaching & Purification HSEQ Committee (Year One)</p> <p>For the first year, within 6 months of the commencement of the Undertaking, initiatives</p>		Within 6 months of acceptance of this undertaking

	developed in accordance with 3.2.6.d(i) will be submitted to Management for approval on demonstration of consistency with parameters above and enhanced safety.		
3.2.6.d(iii)	<p>Implementation and funding of above-compliance health and safety initiatives: Leaching & Purification HSEQ Committee (Year One)</p> <p>For the first year, once approved initiatives are to be implemented by the Leaching & Purification HSEQ Committee within 12 months of commencement of the Undertaking.</p> <p>The costs of the initiatives and the nature of the safety initiatives implemented will be evidenced by the proposals prepared by the Leaching & Purification HSEQ Committee and invoices.</p>	Total cost for Leaching & Purification HSEQ Committee for year one: \$20,000	Within 12 months of acceptance of this undertaking
3.2.6.e(i)	<p>Development / consultation in relation to above-compliance health and safety initiatives: Leaching & Purification HSEQ Committee (Year Two)</p> <p>For the second year, within 15 months of the commencement of the Undertaking, the Leaching & Purification HSEQ Committee will be required to:</p> <ul style="list-style-type: none"> • engage with employees in the operational work unit to promote the identification of safety initiatives through workforce feedback • safety initiatives will be required to meet the following parameters: <ul style="list-style-type: none"> ○ additional employee training, education and awareness requested by employees for enhanced safety outcomes in the operational work area; ○ employee identified improvements in the operational work area in relation to: <ul style="list-style-type: none"> ▪ guarding ▪ signage ▪ mobile equipment ▪ isolation ▪ flooring ▪ lighting and illumination ▪ respirators 		Within 15 months of acceptance of this undertaking
3.2.6.e(ii)	<p>Submission for management approval of above-compliance health and safety initiatives: Leaching & Purification HSEQ Committee (Year Two)</p> <p>For the second year, within 18 months of the commencement of the Undertaking, initiatives developed in accordance with 3.2.6.e(i) will be submitted to Management for approval on demonstration of consistency with parameters</p>		Within 18 months of acceptance of this undertaking

	above and enhanced safety.		
3.2.6.e(iii)	<p>Implementation and funding of above-compliance health and safety initiatives: Leaching & Purification HSEQ Committee (Year Two)</p> <p>For the second year, once approved initiatives are to be implemented by the Leaching & Purification HSEQ Committee within 24 months of commencement of the Undertaking.</p> <p>The costs of the initiatives and the nature of the safety initiatives implemented will be evidenced by the proposals prepared by the Leaching & Purification HSEQ Committee and invoices.</p>	Total cost for Leaching & Purification HSEQ Committee for year two: \$20,000	Within 24 months of acceptance of this undertaking.
3.2.6.f(i)	<p>Development / consultation in relation to above-compliance health and safety initiatives: Leaching & Purification HSEQ Committee (Year Three)</p> <p>For the third year, within 27 months of the commencement of the Undertaking, the Leaching & Purification HSEQ Committee will be required to:</p> <ul style="list-style-type: none"> • engage with employees in the operational work unit to promote the identification of safety initiatives through workforce feedback • safety initiatives will be required to meet the following parameters: <ul style="list-style-type: none"> ○ additional employee training, education and awareness requested by employees for enhanced safety outcomes in the operational work area; ○ employee identified improvements in the operational work area in relation to: <ul style="list-style-type: none"> ▪ guarding ▪ signage ▪ mobile equipment ▪ isolation ▪ flooring ▪ lighting and illumination ▪ respirators 		Within 27 months of acceptance of this undertaking
3.2.6.f(ii)	<p>Submission for management approval of above-compliance health and safety initiatives: Leaching & Purification HSEQ Committee (Year Three)</p> <p>For the third year, within 30 months of the commencement of the Undertaking, initiatives developed in accordance with 3.2.6.f(i) will be submitted to Management for approval on demonstration of consistency with parameters above and enhanced safety.</p>		Within 30 months of acceptance of this undertaking

3.2.6.f(iii)	<p>Implementation and funding of above-compliance health and safety initiatives: Leaching & Purification HSEQ Committee (Year Three)</p> <p>For the third year, once approved initiatives are to be implemented by the Leaching & Purification HSEQ Committee within 36 months of commencement of the Undertaking.</p> <p>The costs of the initiatives and the nature of the safety initiatives implemented will be evidenced by the proposals prepared by the Leaching & Purification HSEQ Committee and invoices.</p>	Total cost for Leaching & Purification HSEQ Committee for year three: \$20,000	Within 36 months of acceptance of this undertaking.
3.2.6.g(i)	<p>Development / consultation in relation to above-compliance health and safety initiatives: Electrolysis & Casting HSEQ Committee (Year One)</p> <p>For the first year, within 3 months of the commencement of the Undertaking, the Electrolysis & Casting HSEQ Committee will be required to:</p> <ul style="list-style-type: none"> engage with employees in the operational work unit to promote the identification of safety initiatives through workforce feedback safety initiatives will be required to meet the following parameters: <ul style="list-style-type: none"> additional employee training, education and awareness requested by employees for enhanced safety outcomes in the operational work area; employee identified improvements in the operational work area in relation to: <ul style="list-style-type: none"> guarding signage mobile equipment isolation flooring lighting and illumination respirators 		Within 3 months of acceptance of this undertaking.
3.2.6.g(ii)	<p>Submission for management approval of above-compliance health and safety initiatives: Electrolysis & Casting HSEQ Committee (Year One)</p> <p>For the first year, within 6 months of the commencement of the Undertaking, initiatives developed in accordance with 3.2.6.g(i) will be submitted to Management for approval on demonstration of consistency with parameters above and enhanced safety.</p>		Within 6 months of acceptance of this undertaking
3.2.6.g(iii)	<p>Implementation and funding of above-compliance health and safety initiatives: Electrolysis & Casting HSEQ Committee (Year</p>	Total cost for Electrolysis & Casting HSEQ Committee for	Within 12 months of acceptance of

	<p>One)</p> <p>For the first year, once approved initiatives are to be implemented by the Electrolysis & Casting HSEQ Committee within 12 months of commencement of the Undertaking.</p> <p>The costs of the initiatives and the nature of the safety initiatives implemented will be evidenced by the proposals prepared by the Electrolysis & Casting HSEQ Committee and invoices.</p>	year one: \$20,000	this undertaking
3.2.6.h(i)	<p>Development / consultation in relation to above-compliance health and safety initiatives: Electrolysis & Casting HSEQ Committee (Year Two)</p> <p>For the second year, within 15 months of the commencement of the Undertaking, the Electrolysis & Casting HSEQ Committee will be required to:</p> <ul style="list-style-type: none"> engage with employees in the operational work unit to promote the identification of safety initiatives through workforce feedback safety initiatives will be required to meet the following parameters: <ul style="list-style-type: none"> additional employee training, education and awareness requested by employees for enhanced safety outcomes in the operational work area; employee identified improvements in the operational work area in relation to: <ul style="list-style-type: none"> guarding signage mobile equipment isolation flooring lighting and illumination respirators 		Within 15 months of acceptance of this undertaking
3.2.6.h(ii)	<p>Submission for management approval of above-compliance health and safety initiatives: Electrolysis & Casting HSEQ Committee (Year Two)</p> <p>For the second year, within 18 months of the commencement of the Undertaking, initiatives developed in accordance with 3.2.6.h(i) will be submitted to Management for approval on demonstration of consistency with parameters above and enhanced safety.</p>		Within 18 months of acceptance of this undertaking
3.2.6.h(iii)	<p>Implementation and funding of above-compliance health and safety initiatives: Electrolysis & Casting HSEQ Committee (Year Two)</p> <p>For the first year, once approved initiatives are to be implemented by the Electrolysis & Casting HSEQ</p>	Total cost for Electrolysis & Casting HSEQ Committee for year two: \$20,000	Within 24 months of acceptance of this undertaking.

	<p>Committee within 24 months of commencement of the Undertaking.</p> <p>The costs of the initiatives and the nature of the safety initiatives implemented will be evidenced by the proposals prepared by the Electrolysis & Casting HSEQ Committee and invoices.</p>		
3.2.6.i(i)	<p>Development / consultation in relation to above-compliance health and safety initiatives: Electrolysis & Casting HSEQ Committee (Year Three)</p> <p>For the third year, within 27 months of the commencement of the Undertaking, the Electrolysis & Casting HSEQ Committee will be required to:</p> <ul style="list-style-type: none"> engage with employees in the operational work unit to promote the identification of safety initiatives through workforce feedback safety initiatives will be required to meet the following parameters: <ul style="list-style-type: none"> additional employee training, education and awareness requested by employees for enhanced safety outcomes in the operational work area; employee identified improvements in the operational work area in relation to: <ul style="list-style-type: none"> guarding signage mobile equipment isolation flooring lighting and illumination respirators 		Within 27 months of acceptance of this undertaking
3.2.6.i(ii)	<p>Submission for management approval of above-compliance health and safety initiatives: Electrolysis & Casting HSEQ Committee (Year Three)</p> <p>For the third year, within 30 months of the commencement of the Undertaking, initiatives developed in accordance with 3.2.6.i(i) will be submitted to Management for approval on demonstration of consistency with parameters above and enhanced safety.</p>		Within 30 months of acceptance of this undertaking
3.2.6.i(iii)	<p>Implementation and funding of above-compliance health and safety initiatives: Electrolysis & Casting HSEQ Committee (Year Three)</p> <p>For the third year, once approved initiatives are to be implemented by the Electrolysis & Casting HSEQ Committee within 36 months of commencement of the Undertaking.</p> <p>The costs of the initiatives and the nature of the</p>	Total cost for Electrolysis & Casting HSEQ Committee for year three: \$20,000	Within 36 months of acceptance of this undertaking.

	safety initiatives implemented will be evidenced by the proposals prepared by the Electrolysis & Casting HSEQ Committee and invoices.	
Total estimated cost of benefits for workers/others		\$2,303,316.00

3.3 Activities to be undertaken to promote the objects of the safety Acts that will deliver benefits for industry

ACTIVITIES	COST	TIMEFRAME
<p>The Effect of Smelter Emissions on Worker Lung Function Study</p> <p>Jane Whitelaw of the University of Wollongong, is the Co-ordinator of the Occupational Hygiene Specialisation and a certified occupational hygienist with the Australian Institute of Occupational Hygienists. Jane Whitelaw will be funded to conduct a study in lung diseases in Australian smelting workers. Ms Whitelaw is proposed to be Project Supervisor, Dr Vinod Gopaldasani, Project Co- Supervisor, and Dr Shahnaz Bakand, Project Co- Supervisor, (University of Wollongong, School of Health & Society).</p> <p>The recent cases of Coal Workers Pneumoconiosis (CWP) diagnosed in Queensland and subsequent warning of the high toxicity of silica in comparison to coal dust by Dr Robert Cohen, and the recommendations made by the 2017 Parliamentary Report into CWP raise concerns that causes of lung diseases in smelting workers may be uncontrolled and undiagnosed.</p> <p>To date, there have been no published studies of the health of Australian smelting workers outside of the aluminium industry where "Potroom Asthma" (generally thought to be caused by exposure to acid gases and fluorides) was the primary concern.</p> <p>3.3.1. This study proposes to evaluate the effect of exposure to heavy metals and irritant gases on the respiratory health of smelter workers at a Zinc Smelter in Northern Queensland via a retrospective and prospective study design including Occupational Hygiene workplace monitoring and Medical Surveillance.</p> <p>The study will be publically available.</p> <p>The study reflects a total project duration of 48 months (further details as per 3.3.1.a to 3.3.1.e below).</p> <p>Benefit: The major outcome expected is recommendations on workplace risk controls and a medical surveillance program to improve respiratory health of the smelter workers. The study will help avoid some of the issues identified in the Parliamentary report into CWP, eg the systematic failure to diagnose the condition. As an above-compliance measure, this will be of benefit to workers, industry and the community generally, given the broad potential scope of recommendations.</p> <p>Evidence: A study proposal which includes the estimated grant required to facilitate the research, which will be paid by SMC.</p> <p>The cost of funding the study will be evidenced by invoices on an annual basis. The study results will be set out in the research paper, a copy of which will be provided to OIR.</p>	<p>Not less than \$442,000</p> <p>(further details as per 3.3.1.a to 3.3.1.e below)</p>	<p>Within 48 months of the acceptance of this undertaking</p> <p>(further details as per 3.3.1.a to 3.3.1.e below)</p>

3.3.1.a	<p>The Effect of Smelter Emissions on Worker Lung Function Study: Months 1-12</p> <p>Work to be undertaken: Establish workplace steering group; literature review, project design, project planning and participant selection; ethics approval from UOW Ethics Committee; develop/refine study protocol.</p> <p>The cost of this aspect of the study will be evidenced by the first annual invoice, as mentioned in 3.3.1 above.</p>	<p>\$55,000 consisting of:</p> <ul style="list-style-type: none"> - Stipend \$28,000 - Consultancy fee \$21,000 - Study Design & Set Up: Site visit by researchers and student to scope project with site personnel (Flights, Accommodation, meals @ \$1500 x 4): \$6,000 	Within 12 months of the acceptance of this undertaking
3.3.1.b	<p>The Effect of Smelter Emissions on Worker Lung Function Study: Months 13-24</p> <p>Work to be undertaken: Recruit participants; baseline & retrospective data collection, evaluation of controls; Data Analysis Phase One.</p> <p>The cost of this aspect of the study will be evidenced by the second annual invoice, as mentioned in 3.3.1 above.</p>	<p>\$163,000 consisting of:</p> <ul style="list-style-type: none"> - Stipend \$28,000 - Researcher Travel to site \$4,000 - Accommodation/Meals \$10,000 - Research assistant - workplace sampling (Level 5 x 0.25 FTE x 1 years): \$30,000 - Consumables \$5,000 - Surveillance Costs Occupational Hygiene Monitoring (sample analysis & consumables: 2/employee x 100/\$240): \$46,000 - Medical Surveillance (\$400/employee (study baseline x 100 employees): \$40,000 	Within 24 months of the acceptance of this undertaking
3.3.1.c	<p>The Effect of Smelter Emissions on Worker Lung Function Study: Months 25- 32</p> <p>Work to be undertaken: Data Collection Phase 2.</p> <p>The cost of this aspect of the study will be evidenced by the third annual invoice, as mentioned in 3.3.1 above.</p>	<p>\$158,000 consisting of:</p> <ul style="list-style-type: none"> - Stipend \$28,000 - Researcher Travel to site \$4,000 	Within 32 months of the acceptance of this undertaking

		- Accommodation/Meals \$10,000 - Research assistant - workplace sampling (Level 5 x 0.25 FTE x 1 years): \$30,000 - Surveillance Costs Occupational Hygiene Monitoring (sample analysis & consumables: 2/employee x 100/\$240): \$46,000 - Medical Surveillance (\$400/employee (@2yrs) x 100 employees): \$40,000	
3.3.1.d	<p>The Effect of Smelter Emissions on Worker Lung Function Study: Months 33-38</p> <p>Work to be undertaken: Data Analysis and Preliminary Reporting (communication to stakeholders and participants about findings).</p> <p>The cost of this aspect of the study will be evidenced by the third and fourth annual invoices, as mentioned in 3.3.1 above.</p>	<p>\$58,000 consisting of:</p> <ul style="list-style-type: none"> - Stipend \$28,000 - Research assistant - workplace sampling (Level 5 x 0.25 FTE x 1 years): \$30,000 	Within 38 months of the acceptance of this undertaking
3.3.1.e	<p>The Effect of Smelter Emissions on Worker Lung Function Study: Sharing of learnings at industry events</p> <p>Work to be undertaken: The results of the study will be disseminated via journal articles and conference presentations. There are a number of industry seminars and events at which potential improvements to safety are discussed and debated. A presentation by Jane Whitelaw on the findings of the research conducted would provide a valuable contribution to these industry discussions.</p> <p>Seminars that may be appropriate for presentations of the study include:</p> <ul style="list-style-type: none"> • events during WHSQ's Safe Work Month; • the Australian Institute of Occupational Hygienists Annual Conference; • the Queensland Mining Industry Health and Safety Conference; and • the International Occupational Hygiene Association Conference. 	<p>\$8000 consisting of:</p> <ul style="list-style-type: none"> - Conference registration, travel and accommodation x 2: \$8,000 	Within 48 months of the acceptance of this undertaking.

	<p>It may be appropriate because of timing and discoveries to make presentations based on a preliminary report and as a result provision has been made for the costs of two conferences. In the event that the results are not presented at a conference prior to the completion of the study, attendance at two conferences following completion will be funded by this amount.</p> <p>Benefit: Improving community awareness of lung diseases in an industrial context, noting the failures identified in the Parliamentary Report on CWP. As an above-compliance measure, this will be of benefit to workers, industry and the community generally, given the broad potential scope of recommendations.</p> <p>Evidence: The cost of this commitment will be evidenced by the annual invoice for the year of the study in which the costs are incurred. If costs are incurred in two different years, then the costs will be evidenced by the two annual invoices for those years.</p> <p>The content of the case study to be shared at the industry seminars will be shared with OIR in advance of the relevant seminar.</p>		
3.3.2.a	<p>Safe Work Month (Year One)</p> <p>During Safe Work Month in the first 3 years following acceptance of this undertaking, SMC will take additional steps to promote awareness in the industry on safe work practices and returning injured workers to work as outlined in this item and items 3.3.2.b and 3.3.2.c below.</p> <p>Benefit: SMC will co-host an event in conjunction with the Port of Townsville during Safe Work Month. The event will include an external speaker as well as a senior SMC representative who will share learnings from the fatal incident. This event will be particularly relevant for other members of the Port of Townsville's Port User Group. As an above-compliance measure focused on raising awareness and community engagement this will be of benefit to workers, industry and the community generally.</p> <p>Evidence: The cost of this commitment will be demonstrated through invoices, as well as presentation and promotional materials, dates of the presentation and details of the speaker, with evidence to be provided after each event.</p>	Costs for year one not less than: \$10,272	Within 1 year of the acceptance of this undertaking
3.3.2.b	<p>Safe Work Month (Year Two)</p> <p>In the second year of this undertaking SMC will continue to co-host an event in conjunction with the Port of Townsville during Safe Work Month, as outlined in relation to the first year of this undertaking in 3.3.2.a above.</p> <p>Evidence: The cost of this commitment will be demonstrated through invoices, as well as presentation and promotional materials, dates of the presentation and details of the speaker, with evidence to be provided after each event.</p>	Costs for year two not less than: \$10,272	Within 2 years of the acceptance of this undertaking
3.3.2.c	<p>Safe Work Month (Year Three)</p> <p>In the third year of this undertaking SMC will continue to co-host an event in conjunction with the Port of Townsville during Safe Work Month, as outlined in relation to the first and</p>	Costs for year three not less than: \$10,272	Within 3 years of the acceptance of this

	second years of this undertaking in 3.3.2.a and 3.3.2.b above. Evidence: The cost of this commitment will be demonstrated through invoices, as well as presentation and promotional materials, dates of the presentation and details of the speaker, with evidence to be provided after each event.		undertaking
Total estimated cost of benefits for industry		\$472,816.00	

3.4 Activities to be undertaken to promote the objects of the safety Acts that will deliver benefits for community

ACTIVITIES	COST	TIMEFRAME
<p>Sponsor Radiologist</p> <p>The Queensland Parliament's Coal Workers' Pneumoconiosis Select Committee has produced its report titled 'Black lung, white lies: Inquiry into the re-identification of Coal Workers' Pneumoconiosis in Queensland' (CWP Report). The CWP Report is a detailed review of 'black lung' and other industrial dust diseases.</p> <p>The CWP Report identifies the lack of specialists in Queensland who are able to identify pneumoconiosis from x-rays as a significant concern.</p> <p>In the United States, the National Institute for Occupational Safety and Health (NIOSH) has developed a set of standards for radiologists to achieve to demonstrate their ability to properly read x-rays, in particular for pneumoconiosis. These standards are based on the International Labour Organisation's classification system. Radiologists can become certified by NIOSH by completing its 'B-reader' program, which requires candidates to successfully complete a NIOSH B-reader course.</p> <p>SMC will sponsor an appropriately qualified radiologist to take the NIOSH B reader course.</p> <p>SMC will set criteria for the successful candidate radiologist, including:</p> <ul style="list-style-type: none"> • appropriate radiology qualifications and experience; and • strong and demonstrable links to Townsville, to encourage Townsville to establish itself as a centre of excellence for pneumoconiosis identification and treatment. <p>As the successful candidate will be out of work for the period of their study and assessment, a stipend will be provided to help cover their loss of income and incentivise applicants.</p> <p>Benefit: Currently the only qualified B Reader radiologists are located in Brisbane. Sponsoring a local radiologist with ties to the Townsville Community will be of benefit to local business that provide services to the mining industry and other non-mining industries that have potentially hazardous chemicals and dust exposure.</p> <p>This is a significant benefit to the community, industry and workers, as an above-compliance measure.</p> <p>Evidence: The cost of this commitment will be met by funding the sponsored radiologists B reader course costs. There will be receipt from NIOSH and receipts for payments of the stipend.</p>	<p>Course material: \$633.95 (US\$500) refundable deposit (not included in total cost).</p> <p>Stipend (one-off payment for undertaking the course): \$2,500.00</p> <p>Total cost: \$3,133.95</p>	<p>Within 2 years of the acceptance of this undertaking</p>
<p>Facilitating B reader course</p> <p>To facilitate the sponsored radiologist's completion of the NIOSH B reader course, SMC will pay for the radiologist's</p>	<p>Accommodation: \$1846.20 (US\$1400 (7 nights at</p>	<p>Within 3 years of the acceptance of this</p>

	<p>travel and accommodation to attend the examination.</p> <p>The NIOSH B reader examination is held at the NIOSH Appalachian Laboratory for Occupational Safety and Health in Morgantown, West Virginia, United States.</p> <p>SMC will pay for return flights from Townsville to Morgantown. SMC will also pay for the sponsored radiologist's accommodation during the travel and for a five day period over the date of the examination.</p> <p>The cost of this commitment will be demonstrated by the costs of airfares, other travel receipts and hotel booking invoices.</p> <p>Taken together with the actions described in 3.4.1 above, this is a significant benefit to the community, industry and workers, as an above-compliance measure.</p>	<p>\$US200 per night))</p> <p>Car hire: \$589.46 (\$US447.16 (7 days at \$US63.88))</p> <p>Flights – Business Class: \$10,454.52</p> <p>Total: \$12,890.18</p>	undertaking
Total estimated cost of benefits for the community		\$16,024.13	

3.5 Agreement to pay the OIR's recoverable costs (These amounts will be provided by the EU Unit)

SMC agrees to pay OIR's costs associated with this undertaking, as itemised below, and it is acknowledged that payment is due 30 days after receipt of the OIR invoice:

• administrative costs	\$3,703
• legal costs	\$1,500
• compliance monitoring costs	\$3,410
• publication costs	\$418
Total recoverable costs	\$9,031

3.6 A commitment regarding linking the promotion of benefits by the person to this undertaking

Any promotion of a benefit arising from the Undertaking will link the benefit to the Undertaking

3.7 A commitment to maintain an OHSMS

3.7.1. SMC acknowledges there is a formal documented OHSMS acceptable to the regulator that satisfies the principles of *AS/NZS 4804:2001 Occupational health and safety management systems—General guidelines on principles, systems and supporting techniques*, currently in place.

3.8 A commitment to ensure the OHSMS is audited by third party auditors

- 3.8.1. SMC acknowledges that the auditors selected to perform OHSMS audits must meet the qualification requirements as set by the regulator.
- 3.8.2. SMC commits to ensuring the OHSMS will be audited by certified third party auditors.
- 3.8.3. SMC acknowledges that details of the auditors' qualifications will be provided with audit reports submitted to OIR.
- 3.8.4. SMC acknowledges that costs associated with these audits will be met by SMC as part of the undertaking.
- 3.8.5. SMC commits to ensuring the OHSMS will be audited against criteria that meets the principles of *AS/NZS 4801:2001 Occupational Health and Safety Management Systems – Specification*

with guidance for use, to verify the OHSMS meets the principles of AS/NZS 4804:2001 Occupational health and safety management systems—General guidelines on principles, systems and supporting techniques.

- 3.8.6. SMC acknowledges that the current OHSMS in place, as detailed in term 3.7.1 is acceptable to the regulator and commits to ensuring that an initial third party audit will be undertaken within three months of this undertaking being accepted.

3.9 A commitment to provide a copy of each finalised OHSMS audit report to OIR

- 3.9.1. It is acknowledged that audit reports received from the auditor will be sent to OIR within 30 days of the audit along with written confirmation that the report has not been altered from the copy provided to the person by the auditor.

- 3.9.2. It is acknowledged that within 30 days of receipt of the auditor's written report, OIR will be advised of the intended actions for addressing each of the report's recommendations.

3.10 A commitment to implement the recommendations from third party audits

SMC commits to ensuring the recommendations resulting from the OHSMS audits will be fully implemented within six months of receiving the audit report, unless OIR grants an exemption due to the actions being unreasonable.

3.11 Minimum spend

- 3.11.1. SMC commits to a minimum spend of \$2,801,187.13 for this undertaking.

- 3.11.2. SMC agrees to spend any residual amount arising from an original term not being completed or being less costly than estimated in this undertaking. Agreement on how to spend this residual will be sought from the regulator.

- 3.11.3. SMC acknowledges the minimum spend comprises of the:


• Total value of benefits to workers/others	\$2,303,316.00
• Total value of benefits to industry	\$472,816.00
• Total value of benefits to community	\$16,024.13
• OIR's recoverable costs	\$9,031.00

Estimated total value of the undertaking	\$2,801,187.13
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SECTION 4: EXECUTION

This undertaking is given by the person on the date it is accepted by the regulator as set forth in section 5 below.

**Executed by Sun Metals Corporation
Pty Ltd** in accordance with section 127 of
the Corporations Act 2001 (Cth);




Signature of director

Yan Choi

Full name of director

19/10/2018

Date



Signature of company secretary/director

Kathryn Danaher


Full name of company secretary/director

19/10/2018

Date

SECTION 5: ACCEPTANCE

This undertaking is accepted by the regulator on the 29th day of November 2021



(signature)

AJ (Tony) James
Acting Deputy Director-General, Office of Industrial Relations

(name of regulator)

Appointed by the Governor in Council as regulator under Schedule 2, Part 1 of the *Work Health and Safety Act 2011*, Schedule 2 of the *Electrical Safety Act 2002* and section 32 of the *Safety in Recreational Water Activities Act 2011*.

Work Health and Safety Act 2011

Part 11 Enforceable Undertakings

REASONS FOR DECISION

Event No.	213755
Entity	Sun Metals Corporation Pty Ltd (SMC)
ABN	97 074 241 982
Entity Address	1 Zinc Avenue Stuart QLD 4811
Location of Incident	Sun Metals Corporation Pty Ltd (SMC), 1 Zinc Avenue Stuart QLD 4811
Date of Incident	16 May 2015

1 History of the application

- 1.1 The WHS undertaking (undertaking) relates to a workplace incident that occurred on 16 May 2015 where a worker employed by Sun Metals Corporation Pty Ltd (SMC) sustained fatal crush injuries while working in the tippler area at SMC's refinery located in Townsville.
- 1.2 The worker was assisting with the unloading of zinc concentrate from train wagons in the downstairs section of the tippler.
- 1.3 After one wagon had been tipped without incident, a wagon 'lift lid' fault was identified by the upstairs control panel operator (upstairs operator). After several failed attempts were made by the upstairs operator to release the lid using the control panel (changing from automation to manual modes), the worker was requested to leave the downstairs control panel area and investigate why the lid was not releasing from the wagon on the opposite side of the track.
- 1.4 The worker left the downstairs control panel area to investigate and confirmed with the upstairs operator by radio that the clamp was not disengaging. Using a 2.8 metre metal bar designed specifically for this task, the worker successfully released the lid clamp and advised the upstairs operator by radio that the fault was fixed.
- 1.5 The upstairs operator then attempted to recommence emptying the wagons in 'Automatic' mode. Shortly afterwards, another fault was detected on the upstairs control panel. The upstairs operator could not raise the worker on the radio and went to investigate and found the worker trapped between the positioner arm and the coupling of two rail wagons.
- 1.6 Following an investigation by Workplace Health and Safety Queensland (WHSQ), prosecution action was commenced against SMC on 29 November 2016 by complaint and summons. This was on the basis that SMC, being a person who had a work health and safety duty under section 19(1) of the *Work Health and Safety Act*

- 2011 (WHS Act), failed to comply with the duty so far as reasonably practicable contrary to section 32 of the WHS Act and the failure exposed an individual to a risk of death or serious injury.
- 1.7 On 6 February 2017, SMC notified the Office of Industrial Relations (OIR) of their intention to give an undertaking for this matter.
 - 1.8 On 23 May 2018, a final draft of the undertaking was received from SMC.
 - 1.9 On 21 June 2018, an Evaluation Panel (panel) consisting of a senior public servant and two external, independent persons evaluated the final draft undertaking and due to the seriousness of the incident (where it involved a fatality), the panel was not willing to recommend that the regulator accept the undertaking.
 - 1.10 On 10 July 2018, feedback was provided to SMC indicating that the panel was not willing to provide a recommendation for acceptance of the undertaking. Acknowledgment was also provided regarding the monetary value and time invested in developing the undertaking. However, a number of concerns were raised regarding the quality of the strategies and initiatives proposed in the undertaking, with a suggestion to focus more on engineering controls rather than administrative control measures.
 - 1.11 On 23 July 2018, an email was received from Clayton Utz acting for SMC acknowledging the initial panel assessment feedback and confirming that SMC would be submitting an amended undertaking for re-evaluation.
 - 1.12 On 19 October 2018, a signed final version of the SMC undertaking was received by the EU Unit.
 - 1.13 On 20 November 2018, the panel reconvened to assess the amended version of the proposed SMC undertaking. Following their evaluation, panel members acknowledged the improvements and addition of engineering controls in the undertaking. However, panel members were unanimous in recommending the regulator reject the undertaking due to the nature and extent of the omissions which gave rise to the alleged contravention that resulted in a fatality.
 - 1.14 On 7 March 2019, the regulator made a preliminary decision to reject the undertaking and this was conveyed to SMC by way of letter along with Draft Reasons for Decision (RFD). The letter also offered SMC the opportunity to make a written submission in relation to the preliminary decision.
 - 1.15 On 5 April 2019, correspondence was received from SMC's legal representative, requesting the regulator reconsider the preliminary decision to reject and provide further clarification and copies of material relied on by the regulator in making a preliminary decision to reject the undertaking.
 - 1.16 On 14 June 2019, the regulator responded providing SMC legal representatives with a revised draft RFD, acknowledgement of SMC's concerns and the requested documents, excluding a document that attracted a claim of legal professional privilege, considered as part of the preliminary decision.
 - 1.17 On 2 July 2019, correspondence was received from SMC's legal representative, requesting the regulator reconsider the preliminary decision to reject and provide further clarification and copies of material relied on by the regulator in making a preliminary decision to reject the undertaking.

- 1.18 On 18 July 2019, the regulator responded acknowledging the concerns raised and providing documents that had not been provided but were relied on as part of the preliminary decision. This excluded a document over which a claim of legal professional privilege was maintained. The claim of privilege is no longer maintained, and SMC has been provided a copy of the document.
- 1.19 On 26 July 2019, correspondence was received from SMC's legal representative reiterating previous concerns raised and providing additional concerns relating to documents relied on as part of the preliminary decision.
- 1.20 On 29 July 2019, the regulator responded to SMC's correspondence acknowledging the concerns raised, maintaining the claim of legal professional privilege on a document relied on as part of the preliminary decision and agreeing to extend the timeframe for providing a final submission.
- 1.21 On 16 August 2019, a final submission was received from SMC's legal representatives responding to the preliminary decision, subsequent responses provided by the regulator and concerns regarding documents relied on in making the preliminary decision.
- 1.22 On 6 December 2019, the regulator rejected SMC's undertaking and provided reasons for the decision.
- 1.23 On 24 January 2020, SMC applied to the Supreme Court of Queensland under section 20 of the *Judicial Review Act 1991* for a statutory order of review in relation to the regulator's 6 December 2019 decision.
- 1.24 On 9 September 2020, the Supreme Court of Queensland quashed the decision of 6 December 2019 and referred the matter to which the decision relates to the regulator for further consideration according to law.¹
- 1.25 The Court determined that:
 - 1.25.1 the rules of natural justice had not been observed in making the decision, as SMC was not provided an opportunity to be heard on the application of section 208 of the *Work Health and Safety Regulation 2011* (WHS Regulation); and
 - 1.25.2 the making of the decision was an improper exercise of power because the regulator had taken into account an irrelevant consideration, namely, the prior prosecution action against SMC in assessing the objective gravity of the incident.
- 1.26 In accordance with order of the Court, the regulator has reconsidered the matter.

2 Legislation and Policy

- 2.1. It is alleged that SMC being a person who had a WHS duty under section 19(1) of the WHS Act failed to comply with the duty contrary to section 32 of the WHS Act.
- 2.2. An undertaking was given in accordance with section 216 (1) of the WHS Act in force at the time of the alleged contravention, under which the regulator may accept a written undertaking given by a person in connection with a matter relating to a contravention or alleged contravention by the person of the WHS Act.

¹ *Sun Metals Pty Ltd v Craig Allen (Deputy Director-General, Office of Industrial Relations)* [2020] QSC 304.

- 2.3. For clarity, amendments to section 216(2) of the WHS Act, effective from 23 October 2017, that prevent acceptance of an undertaking in cases involving a fatality do not apply to alleged contraventions occurring before 23 October 2017.
- 2.4. The Deputy Director-General, OIR has been appointed as the regulator by the Governor in Council under Schedule 2, Part 1 of the WHS Act.
- 2.5. On 18 September 2021, I was appointed as acting Deputy Director-General, OIR.
- 2.6. The *Guidelines for the acceptance of an enforceable undertaking* dated 1 September 2014 and updated in January 2016 are publications provided to assist duty holders in preparing an undertaking for consideration pursuant to section 216(4) of the WHS Act.
- 2.7. In determining whether to accept the undertaking as an enforceable undertaking (EU), the regulator has considered the provisions of section 217 of the WHS Act, under which the regulator must give the person seeking to give an undertaking written notice of the regulator's decision to accept or reject the undertaking and of the reasons for the decision.

3 Material and evidence considered by the regulator

- 3.1 In making a decision regarding this matter, the regulator has given consideration to the following documents:
 - 3.1.1 *How to Manage Work Health and Safety Risks Code of Practice 2011.*
 - 3.1.2 *Managing Risks of Plant in the Workplace Code of Practice 2013.*
 - 3.1.3 *Guidelines for the acceptance of an enforceable undertaking* - dated January 2016.
 - 3.1.4 EU material published on the WHSQ website - <https://www.worksafe.qld.gov.au/laws-and-compliance/enforceable-undertakings>.
 - 3.1.5 Complaint - General Purposes - Made, and Summons – SMC dated 29 November 2016.
 - 3.1.6 WHSQ Investigation Report (Event - 213755) – SMC dated 11 March 2016.
 - 3.1.7 SMC Plant photos – dated 16 May 2015.
 - 3.1.8 Regional Director's Statement of compliance history – SMC dated 7 February 2017 and updated 30 May 2018.
 - 3.1.9 Statement by the OIR's Director, Legal and Prosecution Services – SMC dated 9 March 2017.
 - 3.1.10 Next of Kin correspondence – dated 03 March 2017, 10 March 2017 and 17 March 2017.
 - 3.1.11 Draft WHS undertaking – SMC dated 22 May 2018.
 - 3.1.12 EU Evaluation Panel Initial Evaluation Feedback – dated 10 July 2018.

- 3.1.13 Revised (Final) WHS undertaking – SMC dated 19 October 2018.
- 3.1.14 EU Evaluation Panel Return Evaluation Feedback – SMC dated 6 November 2018.
- 3.1.15 WHSQ EU Chronology – SMC dated 5 January 2019.
- 3.1.16 Financial Capacity Statement – SMC dated 23 May 2018.
- 3.1.17 Correspondence and draft reasons sent to SMC's legal representative dated 7 March 2019.
- 3.1.18 Correspondence and written submissions received from SMC's legal representative dated 5 April 2019.
- 3.1.19 Correspondence and revised draft reasons sent to SMC's legal representative dated 14 June 2019.
- 3.1.20 Correspondence received from SMC's legal representative dated 2 July 2019.
- 3.1.21 Correspondence sent to SMC's legal representative dated 18 July 2019.
- 3.1.22 Correspondence received from SMC's legal representative dated 26 July 2019.
- 3.1.23 Correspondence sent to SMC's legal representative dated 29 July 2019.
- 3.1.24 Correspondence received from SMC's legal representative dated 16 August 2019.
- 3.1.25 Statement of [REDACTED] – dated 4 June 2015.
- 3.1.26 Statement of [REDACTED] – dated 5 June 2015.
- 3.1.27 Statement of [REDACTED] – dated 4 June 2015.
- 3.1.28 Correspondence and reasons for decision to reject SMC's undertaking sent to SMC's legal representative dated 6 December 2019.
- 3.1.29 Judgment in *Sun Metals Corporation Pty Ltd v Craig Allen (Deputy Director-General, Office of Industrial Relations)* [2020] QSC 304.
- 3.1.30 Correspondence received from SMC's legal representative dated 2 October 2020.
- 3.1.31 Correspondence received from SMC's legal representative dated 20 October 2020.
- 3.1.32 Preliminary decision of Mr Allen and correspondence to SMC's legal representative dated 2 February 2021.
- 3.1.33 Correspondence and submission received from SMC's legal representative dated 9 April 2021.

4 Findings on material questions of fact

- 4.1. I acknowledge the submissions made by SMC in relation to concerns about the WHSQ Investigation Report and I place no weight on the Investigation Report noting that there are factual disputes about a number of the report's findings including the relevance of section 222 of the WHS Regulation and the investigator's opinion about "aggravating factors", with which I do not agree. I place no weight upon the recommendation of the evaluation panel in making the decision as the panel was briefed with the Investigation Report.
- 4.2. I accept the submission made by the SMC on 9 April 2021 that neither section 222 nor section 208 of the WHS Regulation are relevant to my consideration of the undertaking.
- 4.3. I accept the submission made by SMC on 9 April 2021 that it was unreasonable to make a finding in the preliminary decision that SMC had attributed blame to the deceased worker and I make no such finding.
- 4.4. I accept the submission made by SMC on 9 April 2021 that the preliminary decision appeared to place insufficient weight upon the positive effects of the undertaking in considering whether it was an appropriate enforcement alternative to prosecution.
- 4.5. I regard the *Guidelines for the acceptance of an enforceable undertaking* (the guidelines) dated January 2016 as relevant to my decision.
- 4.6. I find the undertaking given by SMC satisfies the formal requirements of the WHS Act and the guidelines.
- 4.7. I acknowledge and find that SMC have no previous convictions under the current WHS Act. I note there was a previous offence under the repealed *Workplace Health and Safety Act 1995* that involved an offence with a circumstance of aggravation - namely bodily harm, where a worker was injured while attempting to clean a blocked conveyor. However, I note that no conviction was recorded in relation to this offence and I place no weight upon it.
- 4.8. I find the factual background to the alleged contravention is set out in section 1 of SMC's undertaking.
- 4.9. I find that the procedural history relating to the proposed undertaking is set out in paragraph 1 above.
- 4.10. I note the next of kin correspondence speaks to the enormity of the loss suffered by the partner, the parents and the sister of the deceased worker as a result of the alleged contravention.
- 4.11. I find that SMC, had a health and safety duty under section 19(1) of the WHS Act and failed to comply, so far as reasonably practicable, with that duty contrary to section 32 of the WHS Act.
- 4.12. I accept the assessment of OIR's Director, Legal and Prosecution Services and find that the objective gravity of the matter is 'medium/high' level.
- 4.13. I find that SMC has acknowledged the alleged contravention and shown regret regarding the incident and its consequences.
- 4.14. I find that SMC made rectifications to the workplace and work practices as a result of the contravention as detailed in section 1.11 of the undertaking.

- 4.15. I find the quantum of the undertaking and its effect are proportionate to the objective gravity of the matter and account for the benefits that would accrue to SMC if the prosecution was discontinued.
- 4.16. I find the commitment in the undertaking is comparable to the financial capacity of SMC, considering the Financial Capacity Statement provided by SMC and the estimated total value of the undertaking.
- 4.17. I acknowledge the assurance given by SMC in the undertaking that the behaviour that led to the alleged contravention has ceased and their commitment to ensuring the ongoing effective management of risks to health and safety in the future.
- 4.18. I find the undertaking commits SMC to a standard that is higher than the recognised compliance for the activity and/or to activities over and beyond recognised compliance levels.
- 4.19. I acknowledge that SMC has an Occupational Health and Safety Management System (OHSMS) which includes third party auditing. I find the OHSMS proposed in SMC's undertaking, including the third party auditing arrangement, to be acceptable to the regulator.
- 4.20. I find the undertaking would constitute tangible benefits for the workers, the workplace, the industry and the community as SMC are committing to:
- 4.20.1. Acquiring, implementing and maintaining an integrated electronic permit to work system to improve controls of permits particularly in relation to isolations, hot work, confined space, working at heights and shutdowns. As an integrated safe system of work it will incorporate planning, risk assessment, hazard conflict warning as well as isolation management.
 - 4.20.2. Installing seven automated stainless steel drip trays that will move between the hoppers and the Leaching and Purification Filter Press (LPFP) during the cleaning process. This will remove the risk of spent leakage currently identified via visual checks by an operator.
 - 4.20.3. Automating the LPFP to further reduce the risk of hydrogen generation and to remove the need for operator intervention and presence in the vicinity of the LPFP during operation.
 - 4.20.4. Separating the acid re-pulper tank to the outside of the LPFP building to ensure workers are separated from the re-pulper tank if an incident occurs.
 - 4.20.5. Providing a superintendent from each of SMC's three operational areas with a bespoke safety leadership program developed by health and safety experts and designed to help operational superintendents identify and challenge preoccupations with process and compliance and learn about resilience and how to improve safety culture. The training will emphasise and enhance leadership on safety matters beyond the steps required for legislative compliance.
 - 4.20.6. Facilitating 21 team leaders and process co-ordinators to undertake a Certificate IV Work Health and Safety to improve their understanding of the OHSMS and their role in establishing a safety culture.

- 4.20.7. Implementing an 'Exceptional Safety Culture' program at SMC in conjunction with Griffith University's Safety Science Innovation Laboratory to allow SMC superintendents, safety practitioners and training team personnel to roll out a program to all workers that will help change the way workers engage with safety issues to develop SMC's safety culture.
- 4.20.8. Providing additional funds to SMC's three Health, Safety, Environment and Quality (HSEQ) committees to develop and implement above-compliance safety initiatives proposed by each HSEQ committee for the term of the undertaking.
- 4.20.9. Funding a study into the Effect of Smelter Emissions on Worker Lung Function in conjunction with Wollongong University's Occupational Hygiene Specialisation and disseminating the results of the study via journal articles and conference presentations to improve community awareness of lung diseases in an industrial context.
- 4.20.10. Co-hosting an event, for each year of the undertaking, in conjunction with the Port of Townsville during Safe Work Month to raise awareness and community engagement on safe work practices.
- 4.20.11. Sponsoring a suitably qualified local Radiologist to become certified by National Institute for Occupational Safety and Health (NIOSH) in its 'B Reader' program. NIOSH has developed a set of standards for radiologists to achieve to demonstrate their ability to read x-rays in particular for pneumoconiosis. It is anticipated this will benefit the community, the mining industry and other non-mining industries that have potentially hazardous chemicals and dust exposure.

5 Decision

- 5.1 Because the proposed undertaking given by SMC meets the formal requirements of the WHS Act and policy requirements, my discretion whether to accept the undertaking under section 216(1) of the WHS Act, in force at the relevant time, is enlivened.
- 5.2 The death of a worker is always a matter of serious concern and I have given considerable weight to that fact which tends against the acceptance of the undertaking. However, based on the evidence, findings, in particular those at paragraph 4.20 above, and having regard to the objects of the WHS Act I am of the opinion that, on balance, the undertaking given by SMC is an appropriate enforcement option in this case.
- 5.3 I have concluded that an enforceable undertaking is the preferred enforcement option to continuing the prosecution as it provides the opportunity for lasting organisational change and the development of an effective safety culture within SMC and will deliver benefits to workers, industry and the community through monitored and targeted health and safety improvements and initiatives that would not be achieved through prosecution.
- 5.4 Under section 216(1) of the WHS Act, it is my decision to accept this undertaking as an enforceable undertaking.

6 Human Rights

- 6.1 In making my decision to accept the undertaking as an enforceable undertaking I have considered my obligations under section 58 of the *Human Rights Act 2019* (the HR Act).
- 6.2 Whilst arguable that the HR Act does not apply to this decision because it forms part of a 'proceeding' that was commenced before the enactment of the HR Act,² out of an abundance of caution I have proceeded on the basis that the HR Act may apply to my decision.
- 6.3 SMC is a corporation so does not have human rights under the HR Act.³ However, the decision may nonetheless affect the human rights of the people who form the corporation or are employed by it. Further, the decision may affect the human rights of others like the family of the worker.
- 6.4 In my view, the following human rights may be affected by the decision:⁴
- 6.4.1 Right to life (section 16 of the HR Act).
- 6.4.2 Right to privacy and reputation (section 25 of the HR Act).
- 6.4.3 Protection of families and children (section 26 of the HR Act).
- 6.5 Whilst these rights may be affected by the decision, my decision to accept the undertaking does not limit those rights.
- 6.6 In accordance with section 8(a) of the HR Act, my decision is therefore compatible with human rights because it does not limit a human right.



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² HR Act, s 108.

³ HR Act, s 11(2).

⁴ See HR Act, s 581(b) and (5).