SHU POWDERS

CORPORATE SUSTAINABILITY REPORT

2023

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Introduction

Shu Powders focuses purely on the production of cobalt powders for the cemented carbide and diamond tool industries. We provide material for our customers needs around the world, shipping to North America, Europe and Asia out of South Africa's largest sea port in Southern Africa, Durban.

Shu Powders is committed to conducting business in a way that not only promotes profitability but also benefits society and the environment. Our Corporate Sustainability Responsibility (CSR) initiatives focus on sustainable business practices, ethical sourcing, community engagement, and environmental stewardship. In this report, we will outline the key CSR activities undertaken by Shu Powders in 2023 and highlight our progress toward making a positive impact on the world around us.

Our plant produces most of its operating gasses, has stand-by power generation capability and utilizes what we believe to be the most efficient third-generation production process in the world. In establishing this site, Shu Powders has taken every precaution to protect the natural environment that surrounds the factory, and prevent pollution. As part of its commitment to social responsibility and sustainable growth, Shu Powders has drawn its workforce and service providers from the local community where its operation is based and comprises of culturally diverse employees.

This document marks Shu Powders' ninth Corporate Sustainability Report (CSR) in South Africa, showcasing our corporate sustainability performance consistently since 2015. Our reports emphasize health and safety, environmental stewardship, and social responsibilities—areas that are critical to our key stakeholders, including shareholders, customers, employees, local communities, governments, and suppliers.

As a reputable manufacturer, Shu Powders is unwavering in its commitment to continuous improvement in safety, health, and environmental performance. Our dedication to achieving Zero Harm is a cornerstone of our operational philosophy.

At Shu Powders, we firmly believe that all injuries and environmental incidents are preventable. The safety of our employees, visitors, and contractors is a core, non-negotiable value. Our commitment extends to environmental protection, including proactive measures to prevent pollution. We expect leaders at every level to serve as role models in the management of safety and environmental matters.

Sustainability lies at the heart of our operations, reflecting its vital importance to current and future communities. It embodies our commitment to human integrity, cultural preservation, societal progress, economic prosperity, environmental responsibility, and sustainable lifestyles.

In October 2016, Jingmen GEM Co. Ltd., based in Hubei, China, became the leading shareholder of Shu Powders Ltd. Established in 2001, GEM is China's first publicly traded recycling company, employing over 10,000 people across 19 circular economy industrial parks. The Jingmen plant serves as a certified national education center for the circular economy and is open to the public. GEM's guiding philosophy, "Limited Resources, Unlimited Recycling," underscores their active promotion of the innovative "Urban Mining" concept.

Executive Summary

The key to Shu Powders' SHEQ Management System is its integration across all departments and functions. The company views SHEQ as a shared responsibility that is part of its overall business strategy, rather than isolated departments.

Shu Powders' approach to dust control revolves around the integration of automation technologies at every stage of the production process. These advancements help minimize employee exposure to dust while ensuring that our operations remain efficient, scalable, and aligned with our commitment to worker safety and product integrity

Shu Powders' dedication to creating a dust-free environment through the integration of automation reflects our commitment to both employee well-being and product quality

At Shu Powders, we believe that businesses should play a key role in fostering positive change in the world. Our Corporate Sustainability Report highlights the ongoing efforts we have made in the areas of sustainability, community engagement, ethical business practices, and employee well-being.

Shu Powders Ltd has been sourcing Cobalt raw materials through its related companies GEM Co. and SMR Ltd. GEM Co is sourcing from Glencore's Katanga operation in the DRC and from Cobalt scraps. GEM is a world leader in Cobalt recycling. In Dec 2020, GEM Co. Ltd and Glencore extended their long-term strategic cobalt partnership. Under the terms of the agreement, Glencore will provide around 150,000 tonnes of cobalt contained in hydroxide for GEM between 2020 and 2029. Glencore and GEM are committing each other to annual audits under OECD-aligned standards, specifically, the Cobalt Refiner Supply Chain Due Diligence Standard developed by the Responsible Minerals Initiative (RMI) and others. This shared commitment will help to demonstrate strong responsible sourcing practices and transparency across multiple points along the supply chain.

Highlights	Priorities for 2023
▪ Completion of the PV system resulting in 17% reduction of Eskom electricity. Target 20% can be achieved without load shedding. ▪ Developing plan for pneumatic powder conveying phase 3, including improved binder distribution process. ▪ Zero environmental incidents. ▪ Achieving Bronze Medal score with EcoVadis ▪ Achieving NOSA 5-Star ranking for the 4th consecutive year. ▪ Receiving Lean Diamond Finalist Award.	• Completion of the solar system installation and improving Carbon footprint. • Targeting Zero Cobalt in Urine non-conformances. • Zero Lost Time Injuries. Zero environmental incidents. • Applying for EcoVadis scoring 2023. • Applying for Lean Diamond Award 2023 (PwC, EPL). • Drafting plan for pneumatic powder transfer of last process steps (phase 3: blender to granulators and packaging machine).
Lowlights	**Priorities for 2024**
• Co in urine non-conformances have reduced thanks to pneumatic powder conveying system, • 3 minor LTI, which were investigated and addressed in corrective action reports.	• Industrial plant clean up to eliminate potential dust sources • Targeting Zero Cobalt in Urine non-conformances. • Zero Lost Time Injuries. Zero environmental incidents. • Applying for EcoVadis Silver Medal 2024. • Installation of pneumatic powder transfer phase 3 including improved blending and binder distribution test. • Achieving NOSA 5-Star ranking for the 5th consecutive year.

Key Performance Indicators (KPI)

Health & Safety

Environmental

Social

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Description	Targets / Limits		2023 Actual	2022 Actual	2021 Actual	2020 Actual	2019 Actual	3Year Trend
Bio monitoring (new standard in 2022) (No. of Co in urine non-conformances)	0		16	25	0	0	1	
Dust monitoring between work stations (new standard in 2022) (mg/m^3)	<0.04*		0.001	0.001	0.001	0.001	0.001	
Dust monitoring at work stations (new standard in 2022) (mg/m^3)	<4*		0.01	0.01	0.01	0.01	0.01	
Dust fall out – general ($mg/m^2/day$)	<1200*		173	87	N/A[1]	N/A[1]	13	
Dust fall out - Cobalt ($mg/m^2/mth$)	<2		0.11	N/A[1]	N/A[1]	N/A[1]	0.13	
Lost time incidents (No.)	0		3	0	0	0	1	
Noise (dB)	<85*		84	84	78	78	78	
Water consumption (l/kg Co)	≦20		16	9	19	22	15	
Electricity consumption (kWh/kgCo)	≦7		6.6	6.7	8.7	7.4	8.3	
Fuel consumption (ml/kg Co)	≦5		360	129	9.2	17.5	7.3	
Hazardous waste (g/kg Co)	≦30		23	22	31[1]	39[1]	16	
Environmental incidents & complaints with compensation (No.)	0 0		0 0	0 0	0 0	0 0	0 0	
Employment permanent (%) Employment temporary (%)	≧70 ≦30		80 20	70 30	64 36	93 7	100 0	
Training (hrs per employee)	±20		16	15	18	20	16	
Contribution to community (% of EBITDA)	≧0.4		0.2	0..3	0.2	0.24	0.5	

(*) -referring to legal limits ([1]) – on hold during COVID pandemic

Health and Safety

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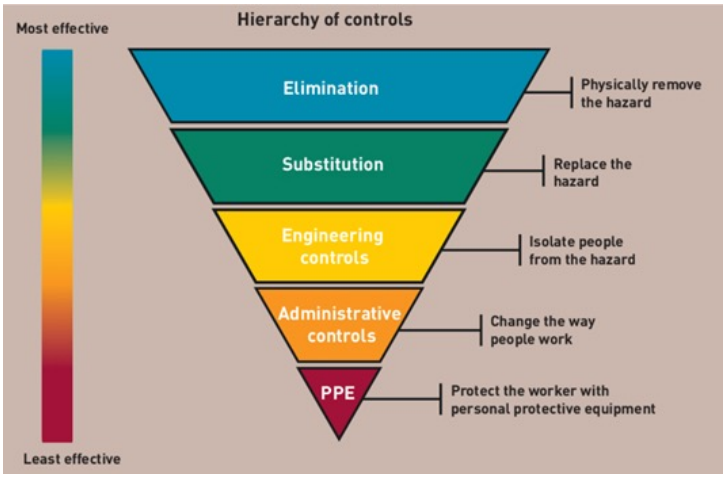
Risk Assessments & Employee Participation

Shu Powders has obligations under the Occupational Health and Safety Act 85 of 1993 (OHS Act) asareas,e General Administrative Regulations 2003 (GAR) to manage risks to health and safety. Shu Powders Africa is committed to fulfilling its obligations under the Occupational Health and Safety Act 85 of 1993 (OHS Act) and the General Administrative Regulations 2003 (GAR) to manage health and safety risks as far as reasonably practicable.

Risk Management Approach
Our risk management process includes:
1. Risk Identification Assessment: Identifying and assessing potential risks to health and safety.
2. Elimination and Minimization: Prioritizing the elimination of risks. Where elimination is not practicable, we minimize risks to the lowest reasonably practicable level.

This approach is crucial for three main reasons:
Workers are an integral part of risk assessments, they are involved in the hazard identification, risk assessment and risk control processes. This is supported by an established process of communication, consultation, and participation. Health and Safety Representatives exist in their respective work areas and they form a HSE committee which meets at least once every quarter, and wherever is necessary.



When considering Risk Control measures, the Hierarchy of Controls methodology is always adopted in order to ensure an effective process.

Workplace hazard identification, assessment and control is an on-going process. And is undertaken at various times, including:
• If it has not been done before.
• When a hazard has been identified
• When a change to the workplace may introduce or change a hazard. Such as when changes occur to the work equipment, practices, procedures or environment, e.g. HAZOP for new pneumatic powder conveying system.
• As part of responding to a workplace incident, even where an injury has not occurred.
• Where new information about a risk becomes available or concerns about a risk are raised by workers
• At regularly scheduled times appropriate to the workplace.

Health and Safety

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Bio-Monitoring

Bio-Monitoring of chemical exposure in the workplace is of critical importance in the assessment of health risks and forms an integral part of the company overall occupational health strategy. We consider biological monitoring as an important tool in the prevention of occupational diseases related to those exposed to chemicals on a regular basis. A complete medical programme is in place consisting of Pre-employment, Annual, and Exit medicals for all employees – whether contract or permanent. All the medicals consist of the following examinations:

- Physical examination
- Eye Test
- Audiometric Testing
- Chest X-ray
- Lung Function
- Cobalt in Urine and Blood samples

To protect employee health from potential cobalt exposure, monitoring programs such as Cobalt Blood Testing and Cobalt Creatinine (Urine Testing) are in place. Our stringent biological monitoring program has assisted us to build a culture of health and safety which has demonstrated our commitment to the well-being of all our employees.
Regular biological monitoring has ensured that our employees are not exposed to cobalt levels that could lead to adverse health effects. This has contributed to a safer workplace environment and helps Shu Powders comply with health and safety regulations.
Biological monitoring detects elevated cobalt levels which has allowed Shu Powders to take appropriate measures to reduce exposure through improving ventilation, adjusting work processes as well as putting engineering controls in place.
No employee had his Cobalt in Blood exceeding the recommended levels of 25mg/L since year 2019. This is a great achievement since Cobalt dust is one of the company's top three hazards thus reducing dust emissions is a priority.

In the event that an employee got an exceedance of Cobalt in Urine or Blood, the employee is removed from exposure for minimum of two weeks and a thorough Root Cause Analysis comprising of the Occupational medical practitioner, the area's Health and Safety Representative and the area's Manager. The Root Cause Analysis is followed by a review of current control measures, safe work procedures, and a refresher training on proper PPE use and hygiene.

Health and Safety

Bio-Monitoring

On 29 March 2021, the Minister of the Department of Employment and Labour published the Regulations for Hazardous Chemical Agents, 202. The changes introduced are far reaching in there with regards to seeking compliance but they are a great move in the direction of ensuring a health workplace. The changes came into effect on 29 September 2022 (18 months after the promulgation of the Regulations). The changes are meant to align South African Standards with terms of the UN Globally Harmonized System. Specific changes which impact on Shu Powders are as follows:

1. The permissible dust levels in work areas were revised from 0.1mg/M^3 to 0.04mg/M^3.
2. Thresholds for Cobalt in Urine which were not clear in the South African legislation were introduced and is at 15ug Co/ L of urine. This is against a self-imposed limit of 50ug Co/g Creatinine.

Shu Powders has undertaken a transition period and results are compared to both the old and the new standards

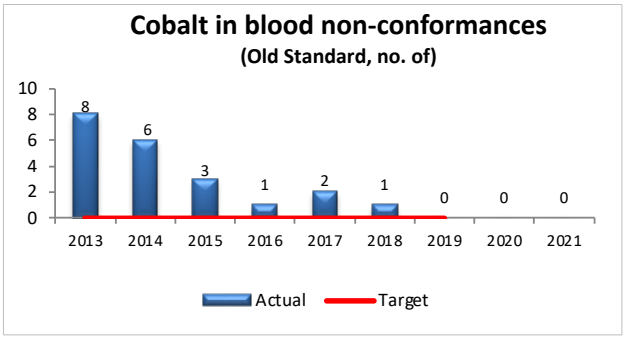


Fig 1. Cobalt in blood non-conformances: Number of non-conformances decreased over time thanks to hygiene, awareness and engineering solutions. Co in blood analysis stopped following the new regulation 2022.

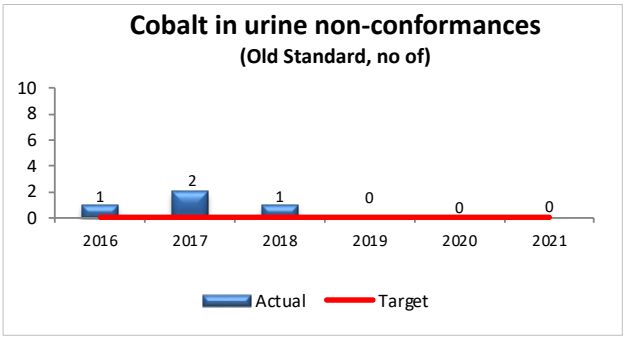


Fig 2. Cobalt in urine non-conformances: Same as for Co in blood, number of non-conformances decreased over time thanks to hygiene, awareness and engineering solutions. Old Standard stopped following new regulation in 2022.

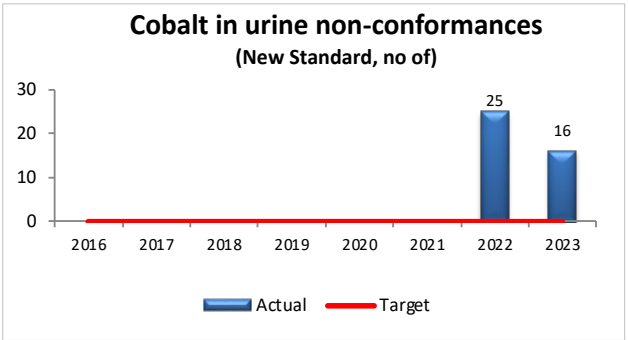
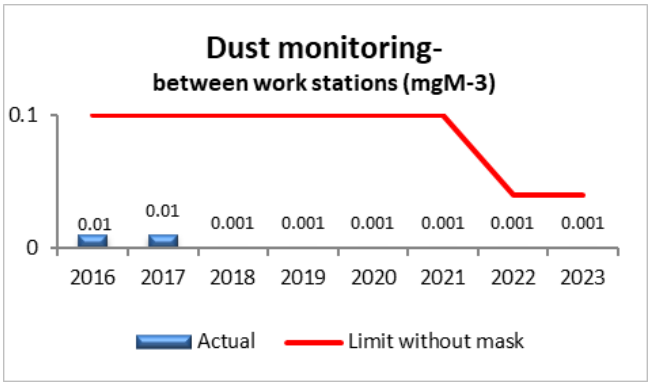


Fig 3. Cobalt in urine non-conformances: New standard started with high number of non-conformances following the much tighter threshold. However, the number of non-conformances decreased in 2023 thanks to hygiene, awareness and engineering solutions.

Health and Safety

Dust Monitoring



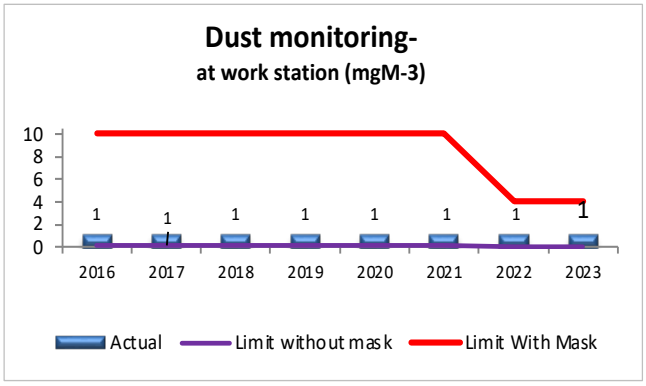


Fig 4a: Dust Monitoring between Work Stations: Numbers are below the old and new threshold on the audit day. APEX will continue to take measurements but on general workers at work stations to identify sensitive areas.
Our goal is to make sure that there is no need to wear a full face mask between work stations. Employees in the general factory environment will wear only paper masks and only at work stations will use full face mask.

Fig 4b: Dust Monitoring at Work Stations: Data are extracted from APEX report every two years. General workers wear full face masks at workstations, bringing the dust level down by a factor x100, hence from 1 to 0.01 which is below threshold. The new pneumatic powder conveying eliminates most of the work areas where there was manual handling and exposure to dust by employees. Besides the reduction of dust, reduction of work areas of manual handling is a great success in eliminating employee exposure.

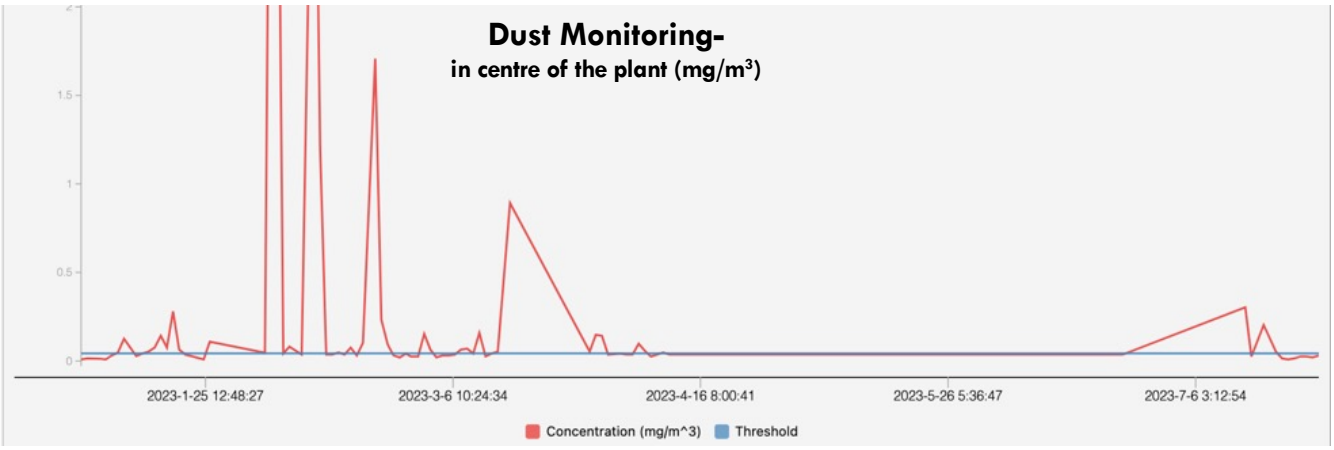


Fig 5: Dust Monitoring in center of plant:
Since 2022, Shu Powders is monitoring dust in the center of the plant on a daily basis. It is tracked in the new SCADA system (Ssupervisory Control and Data Acquisition). The dust detector is as it is also used by authorities. In most cases, dust is below the previous threshold of 0.1 but above 0.04 in several cases. The average dust level is 0.15 mg/m^3 excluding outliers and incidents related to load shedding and others. We will see improvements moving forward and seeing this number brought down significantly in 2024.

Health and Safety

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Dust Reduction

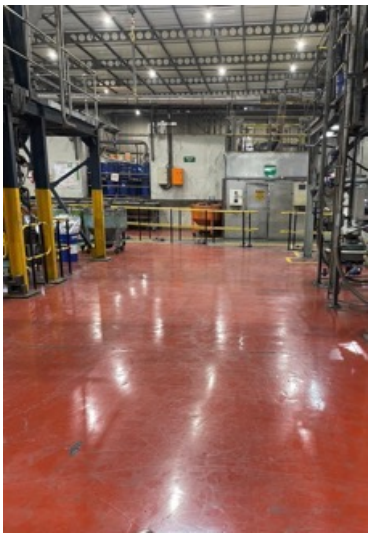

Fig 6: Dust Reduction through Pneumatic Powder Conveying System:

Shu Powders' approach to dust control revolves around the integration of automation technologies at every stage of the production process. These advancements help minimize employee exposure to dust while ensuring that our operations remain efficient, scalable, and aligned with our commitment to worker safety and product integrity. While automation has dramatically improved our ability to maintain a dust-free environment, Shu Powders remains committed to continuous improvement in this area.

As part of our ongoing efforts, we plan to:

• Expand Automation: We will continue to invest in cutting-edge automation technologies to further improve dust management and enhance safety across all production stages.

• Research New Dust Control Innovations: We are constantly exploring new technologies, materials, and methods to improve dust control in the manufacturing process.

• Employee Training: Ensuring that our employees are fully trained on the use of new automated systems and the importance of maintaining a dust-free environment will remain a priority.

The specific benefits of the pneumatic powder conveying system installed in H1 2022 are:

- There is less dust in the plant and less possibility for contamination.
- Secondly, there are no trolleys required to transport material from work station to work station. It allowed the company to reduce general workers on the floor from 8 to 3 per shit. This means less people that could potentially be exposed to Cobalt dust.
- Finaly, the oxygen content in the powder can be reduced as the material is protected against the environment.

Shu Powders' dedication to creating a dust-free environment through the integration of automation reflects our commitment to both employee well-being and product quality

Health and Safety

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Lost Time Incidents

Shu Powders is committed to the health and safety of its employees, visitors and contractors, this includes the protection of the environment and the prevention of pollution, and the protection of property against damage. The target for SHEQ incidences is Zero. This commitment is demonstrated by various ways among them, leading by example, formal training given to employees; awareness through tool box talks, posters, the safety day. For every incident which occurs, a Root Cause Analysis is carried out to find a lasting solution to the incident.

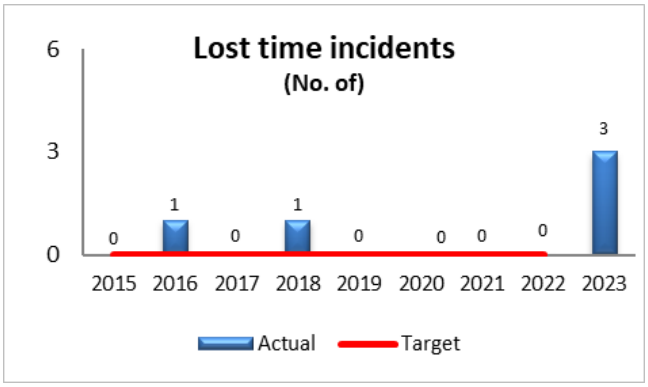


Fig 7, LTI: in the year 2023 we had 3 lost time injuries.

Lost Time Incidents in 2023: Two of the lost time injuries were safety related, with the third one being health related. As shown in the table below, one of the incidents was a restricted work day.
RWD – restricted work day
LWD – lost work day

17/03/2023	Production	LWD
24/04/2023	Maintenance	RDW
31/08/2023	Maintenance	LWD

Health and Safety – NOSA Performance

Lost Time Incidents

In addition to the ISO 45001 system that forms part of the Integrated Management System, Shu Powders also implements the NOSA CMB 253N Standard of Health and Safety. South Africa is the origin of this standard and it is spreading across the globe as one of the flagships in H&S. Performance is a function of the Effort Score and the DFR (Disabling Frequency Rate) and is given a rating on a Five –Star scale. The 5-Star is the highest ranking, and an organization that achieves consistently the 5-Star is elevated to the NOSCAR – which is the highest grade an organization can achieve.

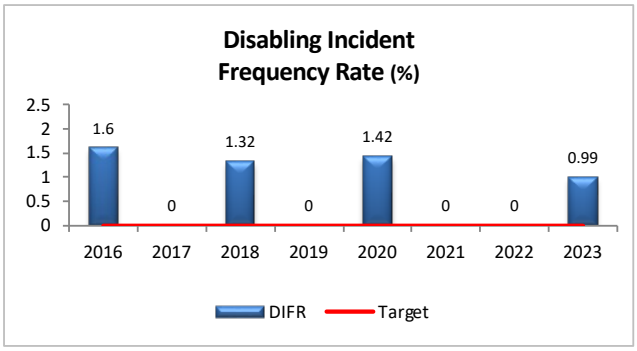


Fig.8: The Disabling Frequency Rate was 0.99 for 2023 due to 3 LTIs.

Despite having 2 lost time incidents and 1 restricted work day incident, Shu Powder was still able to maintain the 5 platinum stars NOSA rating.

Health and Safety – NOSA Performance

Effort Score

In addition to the DIFR, the NOSA system have got an additional performance indicator. This is the Effort Score and is a function of the following HSE pillars:

- Commitment & HSE Management Policy
- Planning of the NOSA HSE Management System
- Implementation & Operation of the HSE Management System
- NOSA HSE Management System Evaluation & Corrective Action
- HSE System Review.

Fig. 9: We managed to maintain a high Effort Score of 91.2 but we fell short of achieving our voluntary target of a 95% Effort Score, which was going to see us elevated to NOSCAR category., the highest an organization can attain.

Environmental

Water consumption

Water conservation is critical in South Africa due to the country's geographical, environmental, and socio-economic conditions. This makes water a precious and limited resource, which necessitates active efforts by us to save and protect it.

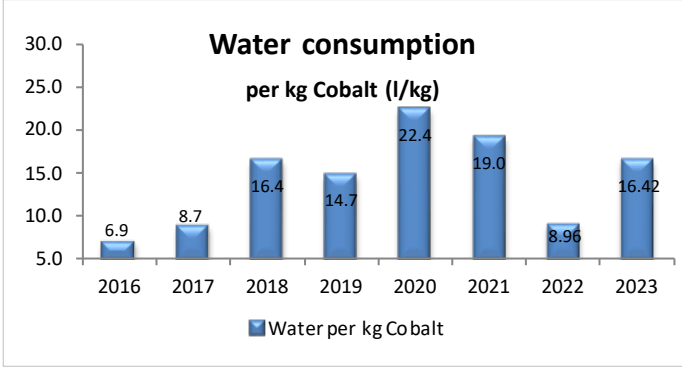


Fig 10, Water consumption:

- Thanks to the installation of a leak detection software, training and awareness, the water consumption further improved.
- Most of the water consumption is for staff hygene as plant water is recycled. 2022 was a high production year with same staff, hence coefficient coming down.
- In 2016, 2017, authorities used defective metering.
- Jojo tanks are used to recover rain water form the warehouse roofs that refills the colling water ponds.
- Shu Powders also has a 200m^3 water reserve filled with municipal water. 70m^3 are used as a fire water reserve.

Electricity consumption

Although the South African energy crisis, characterized by continuous blackouts of electricity, began in the later months of 2007, they have been most severe in the year 2022 and the problem still persist through to 2024. During these periods, power is rationed between different electrical grid areas across the country and within municipal area. Electricity consumption has decreased significantly due to the unavailability of electricity and producing instead, using diesel.

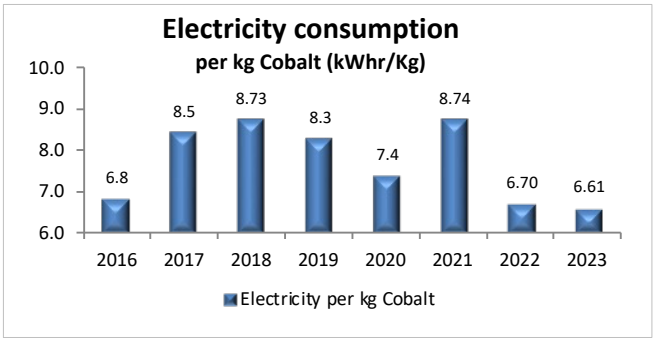


Fig 11, Electricity consumption: Electricity usage decreased significantly as it is substituted with diesel.

Environmental

Fuel consumption

Although the company invested in a major solar installation project, covering above 90% of the site roof space, we are still relying on the diesel generator to power operations during loadshedding periods, this has seen fuel consumption sky rocket.

Shu Powders has applied for a dedicated power line from the national electricity provider Eskom in 2023. This line is scheduled to be implemented end of 2024 for commissioning Q1 2025. The line is shared with neighbouring company Maersk. It will qualify Shu for curtailment program that will eliminate load shedding entirely. Shu is developing a curtailment program that allows to reduce electricity requirements in stages by certain percentages.

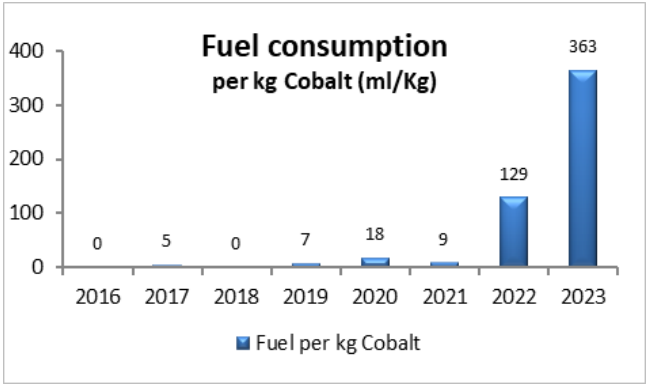
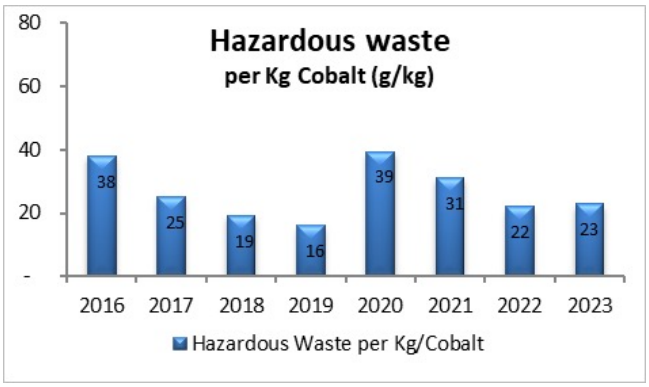


Fig 12, Fuel consumption: Fuel consumption has increased substantially like never before, this is a reflection of the seriousness of loadshedding.

Waste Managemet

Separation-at-source is the heart of recycling. Shu Powders has done just that in an effort to improve recycling and avoid waste to the landfill.



Pict 13. Hazardous waste: Hazardous waste quantities have decreased. This is due to continuous cleaning and reuse of used raw material big bags and pallets. The cleaning was interrupted in the COVID years 2020 and 2021 and resumed in 2022.

Environmental

Incidents and Complaints

Shu Powders has an obligation to ensure that we comply to all legal requirements and satisfy expectations – from both the authorities and other interested parties. Our environmentally friendly operations have seen us being in undisturbed co-existence with communities around us, neighbours, the authorities and employees, registering zero complaints since 2016.

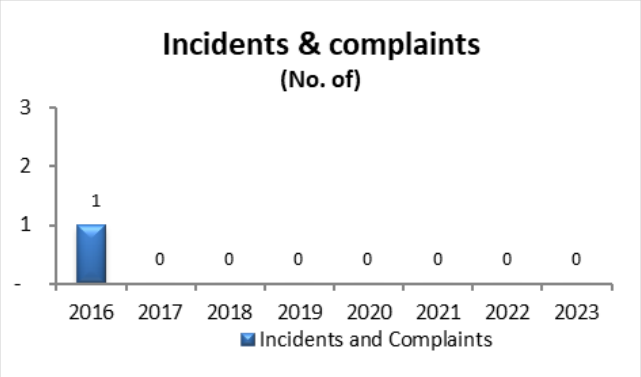


Fig 14, Incidents and complaints: The overall trend is positive as there was no complaint since 2016.

Incidents:

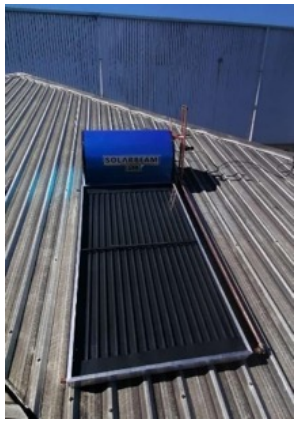
- Years 2016 – 2023: there were no environmental incidents or complaints
- 2015 - June, a valve on the ammonia surge tank was mistakenly open leading to the release of some ammonia vapour.
- 2014 - no environmental incidents.
- 2013 – December, the lab conservancy tank was full and as a result the drains were filling up. 5000 Litres of the contents were pumped into a bulk plastic tank. The liquid effluent was eventually collected by an accredited waste removal company.

Corrective and Preventative Action Reports were raised for each incident.

Outlook

Shu Powders is investing in solar power to replace 20% of its grid requirements with renewable energies. Majority of plant roofs will be covered with solar panels. In addition, electric hot water geysers are being replaced by solar powered hot water.

Solar panels covering most of Shu Powder roof space to generate electricity.



Hot water geysers being replaced by solar.

Environmental

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Photovoltaic System

Fig 12a,b, Solar Panels: Installation running at full capacity as of March 2023. First cleaning of the panels was applied in 2024.

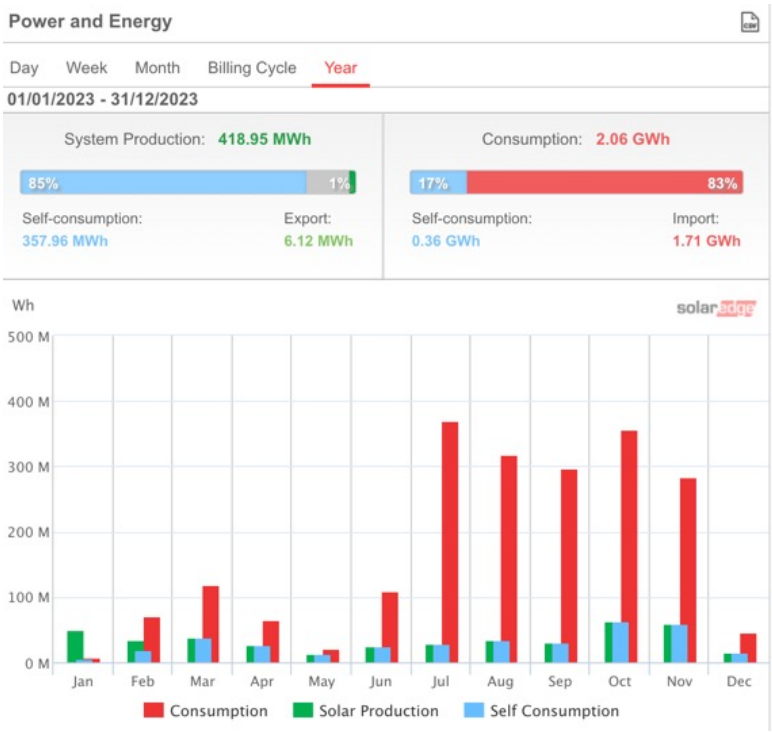


Fig 15, Solar Edge dashboard:

- Online app is informing about power generation by the PV system, self consumption on a daily, monthly and annual basis.
- So far, Eskom does not allow to feedback into the grid. This will only be possible with a dedicated line in 2025.
- Also, the PV system cannot run during loadshedding as it could damage the diesel generator in case power demand dropping below generator capacity range of 40% to 90%.

Environmental

Circularity - Cobalt recycling

- Many of the larger hard metal manufacturers such a Sandvik or Mitsubishi Materials Corp. have announced ambitious targets for circularity, notably 90% or 80% by 2030.
- Following this guidance, SMR (Shu Powders parent company with 40% shares) has entered into a 3 year Cobalt recycling contract with partner HC Starck from Germany. HCST recycles hard metal scrap by extracting tungsten and returning WC powder. The Cobalt fraction (average 10%) is recycled at SMR's partner Incasa in Brazil and Co powder is returned by Shu Powders.
- Incasa is investing in a 600 MT/y Cobalt refinery specialized on recycling. It has operated a 80MT Cobalt pilot plant already since 2018. Incasa then started building a 50MT/mth Co:Ni solvent extraction line in 2022 where equipment was delayed due to COVID-19. In a next step, Incasa will convert the Co pilot plant into a DEHPA line in 2023 that further removes impurities prior to Co:Ni separation. Finally leaching capacity is upgraded in 2024 to reach the full 600 MT/y.

Fig 16, Incasa Co refinery:
The new Co:Ni separation line using solvent extraction technology being commissioned early 2023.

Environmental

Soft Granulated Cobalt Powder

Our R & D and Marketing department embarked on a project which was evaluating our conventional granulated cobalt powder as well as that of the competitor to identify opportunity for improvement to achieve competitive advantage.

During the study it was established that conventional granulated cobalt powder is very hard and this poses a problem for customers as it is challenging to disperse in their application of the hard metal milling process. This results in poorly dispersed cobalt powder resulting in cobalt pooling which in turn results in inferior tool performance. In addition, it requires long milling times with high energy consumption affecting the customers' carbon footprint.

Shu Powders then decided to carry out research for new product development with the aim of offering our customers an alternative to the conventional material. As a result, our new and improved product of soft granulated cobalt was developed giving customers a solution to reduce milling time and energy consumption as well as to improve the overall tool performace.

The new and improved product offers the customer improved quality (free flowing granules) as well as benefit from a health and safety perspective as the product is dust-free, free-flowing, non-flammable.

The pictures below shows the comparison of the conventional material versus the new and improved Soft Granulated Cobalt Powder.

Shu Powders is the only cobalt manufacturing company that customer's produce the Soft Granulated product which has given us competitive advantage. Our customers feedback has inspired us to continue embarking on product innovation.

Fig 17a, conventional granulated Co powder
The granules are manufactured using compaction pressure which makes them hard and difficult to disperse at lower milling times.

Fig 17b, soft granulated Co powder:
The granules are manufactured without compaction pressure, which makes them soft and easy to disperse also at lower milling times. They still have the same benefits of dust-free, non-flammable and free-flowing.

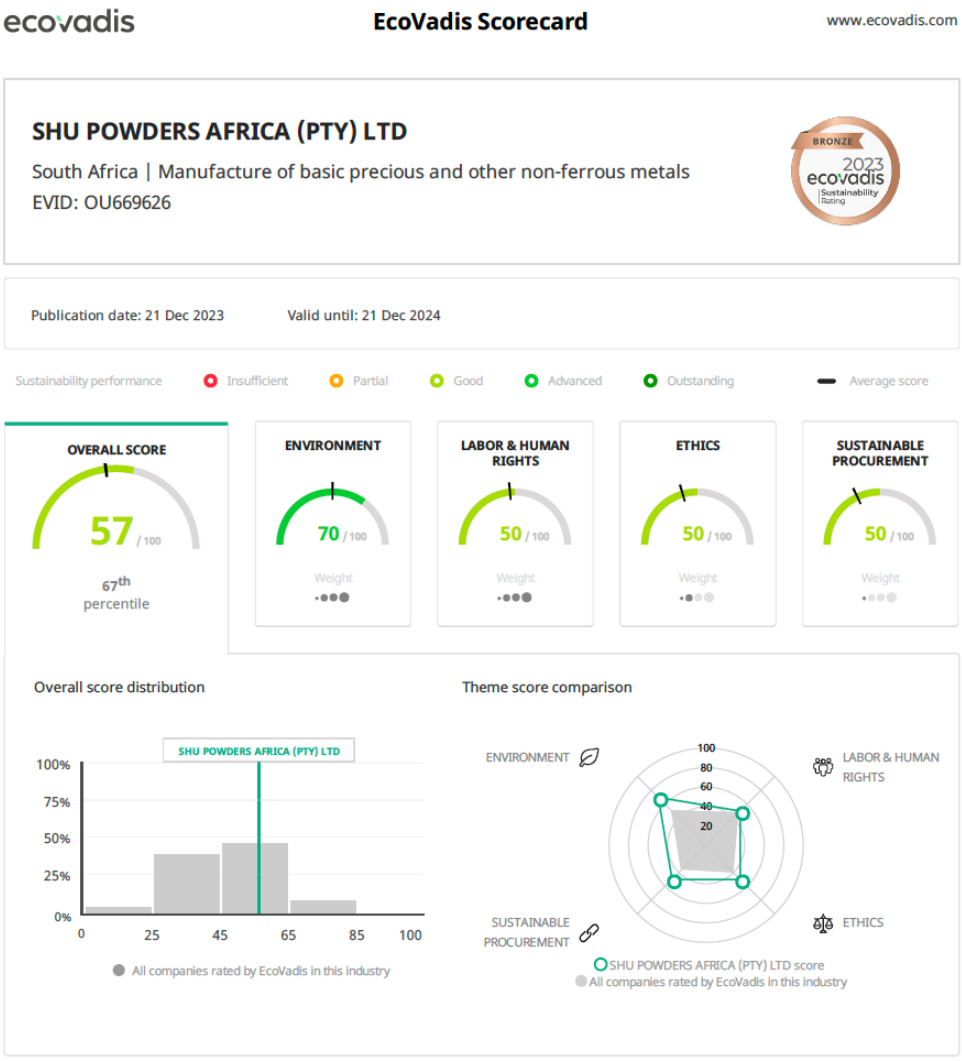
Environmental

EcoVadis

In 2023, we earned the EcoVadis Bronze Medal, placing us among the global leaders in corporate sustainability. EcoVadis is an internationally recognized platform assessing companies on environmental impact, labor practices, ethics, and sustainable procurement. This recognition highlights our responsible business practices and commitment to making a positive impact beyond compliance.

EcoVadis is one of the world's most trusted platforms for assessing corporate sustainability. It evaluates companies based on their environmental impact, labor and human rights practices, ethics, and sustainable procurement. With over 100,000 companies assessed worldwide, EcoVadis sets a high bar for responsible business practices.

It is our internal goal to reach a Silver Medal in 2024.



Social

Employment

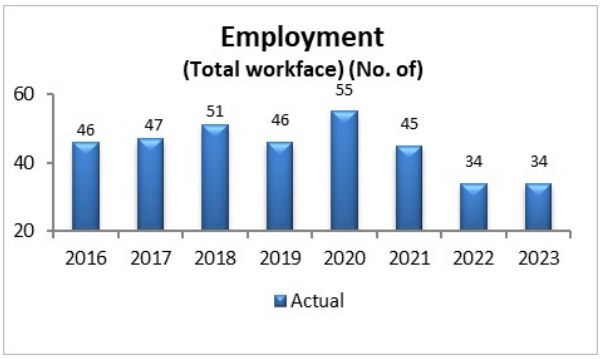


Fig 18, Total workforce: Workforce was lost as a result of the industrial strike. An entire new workforce was trained in 2021. Automation and digitalization has allowed to reduce from 8 to 3 general workers per shift. There are an additional 8 students on Chieta grants working at Shu.

The students working as internal trainees allows Shu Powder to recruit competent and motivated young engineers to work their way through various departments to eventually replace senior managers who seek employment in larger companies after having spent several years at Shu Powders.

Fig 19a, Employment full time: Several general workers that joined Shu after the industrial strike joined the company on permanent contract as per SA labor law.

Fig 19b, Employment contract: The ratio of temporary employees fell due to workers being given permanent employment.

Social

Training

At Shu Powders we realize no goal, regardless of how small, can be achieved without adequate training. Engaged and skilled employees are the driving force behind every successful operation.

To ensure that our training program is properly targeted, we started by conducting assessments to identify specific skill gaps in the workforce. These assessments involved skills gap analyses, performance appraisals and/or employee surveys.

After the skills needs were identified, a training plan was developed. The training plan was further developed into a training schedule to address the training needs – some training was provided internally and some of the training was outsourced.

Apart from HSE compliance training, Shu Powders has changed its approach to more strategic, long term courses, which empowers employees with higher skills. This empowers employees, giving them more control over their jobs, especially machine operators. This addresses such issues as breakdowns, and call outs.

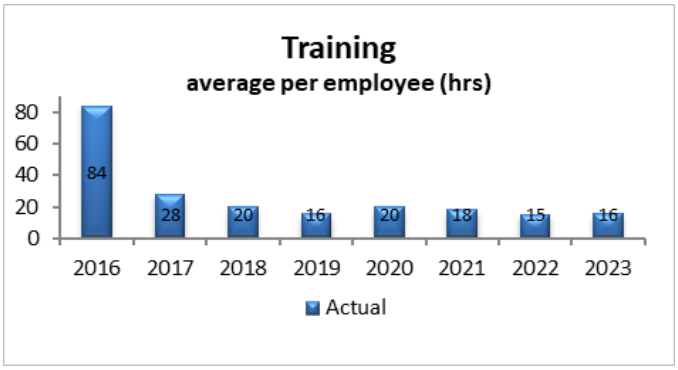


Fig 20, Training:

- The company targets about 20 hours per employee per year.
- New general workers being given the relevant training; this is also due to new processes and equipment being introduced in the factory, especially the pneumatic powder transfer.

Social

LEAN DIAMOND AWARD

The year 2023 marked a great milestone in our LEAN journey – a decade of commitment and excellence in manufacturing, the height of which was the invitation and subsequent participation in the Lean Diamond Awards held in Milan, Italy, where the company earned a finalist spot in the Lean Diamond Awards.

It was always Shu Powders' vision to be the leading Cobalt producer in the world – leading in terms of value delivered to our customers and reduction of waste.

Shu Powders adopted Lean in 2013 and since then, embarked on a Lean journey as a vehicle to realize that vision: ''To be the leading fine Cobalt Producer in the World".

The year 2013 saw Shu Powders embark on one epic transformation – the Lean journey. This journey revolutionized Shu Powders' way of conducting business and transformed what used to be just a vision into its philosophy. Shu Powders had always envisioned itself as the future global Cobalt powder producer.

In order to focus its implementation, relevant strategic objectives were set and were as follows:

- Lowering operational costs
- Achieving an agile and flexible organization, and
- Stakeholder ownership of business with a culture of continuous improvement.

From a business-as-usual approach to adopting LEAN, the organization adopted the project management organizational structure. This brought instant positive results and was followed by intensive training of the entire workforce.

One of the highlights of this journey was the adoption of the ESG pillar into the LEAN transformation. Shu Powders realized the rising importance of ESG matters and that fundamental shifts are transforming what it takes to be commercially successful, thus, an improved Environmental, Social, and Governance (ESG) strategy and disclosure was vital if Shu was to achieve a more sustainable future, vis-à-vis, its vision.

The Lean Diamond journey began with an assessment that gauged the maturity of our lean practices across several core areas, including innovation, sustainability, and digital transformation. This was followed by a signed collaboration agreement to document Shu Powders' transformative lean initiatives, which became part of an executive presentation during the award's ceremony and feature in the program's official book. In attendance at the awards ceremony held in Milan, Italy was the Lean champion Derosha Moodlier and the managing director. The awards provided Shu Powders with a global platform to showcase these achievements and inspire others in the industry.

Shu Powders made it into the finals in competition with many world class brands such a Coca Cola, Siemens and others. A book with a case study on the finalists will be published end of 2024. It will present a 40 page article on Shu Powders LEAN journey.

Social

A key highlight of Shu Powders' submission was the dedication of leadership from directors and board, taking all employees along the lean journey for the past 10 years leaving no one behind which was part of his turnaround strategy. Another highlight was that of the Lean Champion Derosha Moodlier whose masterclass presentations played a crucial role after the awards ceremony. Derosha was invited as a guest speaker for the LDA masterclass sessions. These sessions allowed industry leaders to share real-world solutions, engaging with industry experts to refine their strategies and inspire others in the lean community. Shu Powders' case exemplifies the importance of continuous improvement, people engagement, and cross-functional learning, which align with the Lean Diamond Awards' goal of recognizing and spreading transformative lean journeys worldwide

In addition to the international recognition of our work, which is a big morale booster, Shu Powders has managed to transform into a global competitive organization with an increased customer focus, operational efficiency, and a strong winning culture amongst its entire workforce.

Fig 21a, Lean Diamond Award:
Shu Powders Lean Champion Derosha to at the Lean Diamonds Award in Milan Italy, Dec 2023

Fig 21b, Lean Diamond Award:
Derosha receiving the award for Shu Powders Ltd.

Social

Contribution to the local community

We are in a 'social contact' with the community we are part of – all our employees are drawn from a small radius around our site giving us a greater sense of belonging with shared values, norms and meanings. Our strong sense of commitment saw us contribute around 0.4% of our EBITDA annually towards the community for the past 10 years.

Our contribution to the local community over the many years has allowed for us to build stronger relationships with local leaders and other businesses in the area which has fostered goodwill and trust leading to better collaboration

The countless examples of Shu Powders contribution to the local community has allowed for various social issues to be addressed.

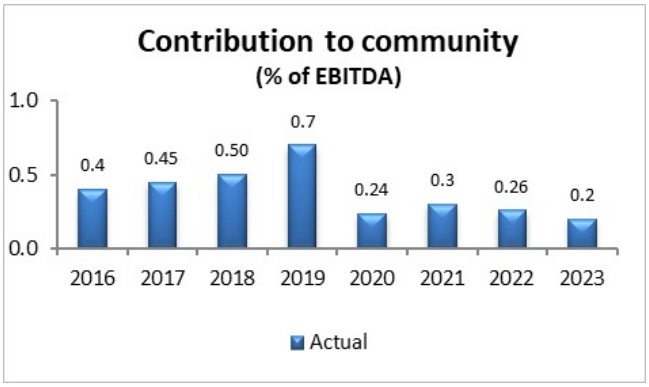


Fig 22, Contribution to the community : Shu's contribution to the community as a share of earnings remained stable in spite of difficult economic circumstances.

Raw Material Sourcing

DR Congo issues

On January 19, 2016, Amnesty International published a report titled "This is What We Die For", outlining allegations against companies directly involved in the trade of cobalt sourced from artisanal mining as well as against some of the world's largest technology firms down the supply chain. [Ref 4] In the report Amnesty documents human rights abuses in DRC's artisanal cobalt mining sector such as child labour and hazardous and unhealthy working conditions (Fig 16).
In November 2018, Amnesty International published a follow-up report: "Time to Recharge" – Corporate action and inaction to tackle abuses in the cobalt supply chain. Many downstream companies have been slow or resistant to adopt clear policies for due diligence in their cobalt supply chains.

Fig 23a, Amnesty International Report: A video clip is available under http://youtu.be/7x4ASxHIrE

Fig23b, Amnesty International Follow Up Report: Some corporations have taken action since 2016 but many others have not.

Note:

- On March 29, 2016, the London Metal Bulletin published articles stating that China's refineries imported almost a quarter of million tonnes of cobalt concentrate from the DRC in 2015, according to China import statistics. [Ref 5]
- These concentrates have been produced in dangerous conditions or by children in artisanal mines in the DRC.
- Six companies from China have been identified to import at total of over 224 750 MT of cobalt concentrate in 2016.
- Among these six companies is the cobalt powder producer **Nanjing Hanrui**. [Ref 5]
- Note that the company GEM was the only larger Chinese Cobalt refinery not listed in above article [Ref 5].

Raw Material Sourcing

DR Congo issues

Throughout the cobalt supply chain an increasing number of companies have started to focus on responsible sourcing and supply chain due diligence. The battery supply chain in particular has been faced with growing pressure directed at its responsible sourcing practices, not just from NGOs like Amnesty International but also from the media, regulatory and legislative bodies and consumer organizations. Efforts by the cobalt industry to create a more responsible supply chain have resulted in progress on several fronts during.

Fig 17, Initiatives ensure materials are mined and sourced in accordance with the due diligence guidance on human rights as set forth by the OECD (Organization for Economic Co-Operation and Development)

Name	Year	Scope	Participants
RMI - Responsible Materials Initiative	2008	Founded by members of the Responsible Business Alliance and the Global e-Sustainability Initiative, the RMI has become one of the most utilized and respected resource for companies addressing responsible mineral sourcing issues in their supply chains. The RMI offers companies an independent minerals assurance process to identify verified smelters and refiners that have systems in place to responsibly source minerals according to approved global standards.	Over 300 members, including numerous technology, auto and mining companies such as Amazon, Boeing, BASF, Dell, Ford, HP, Huawei, IBM, Samsung, Toshiba. RCI - Responsible Cobalt
RCI - Responsible Cobalt Initiative	2016	Initiated by the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters (CCCMC), with support from the OECD. Members undertake collective action in addressing social and environmental risks in the cobalt supply chain while developing due diligence tools for risk assessment and supplier management for cobalt smelters and refiners.	Over 30 members, including Apple, HP, Huawei, Samsung, Volvo, Daimler, BMW, Huayou and GEM. CIRAF - Cobalt Industry
CIRAF - Responsible Assessment Framework	2017	Introduced by the Cobalt Institute (CI), CIRAF seeks to identify material issues and risks within the cobalt sector for CI members and their customers. It is a good practice based framework that provides guidance to its members on the assessment and reporting of core issues pertaining to environmental stewardship, health and safety and human rights.	Numerous members of the Cobalt Institute, including Glencore, Umicore, Freeport Cobalt, Shu Powders
RSBN - Responsible Sourcing Blockchain Network	2019	Formed by Huayou Cobalt, Ford Motors, LG Chem, IBM and RCS Global. The consortium ran a successful pilot project which, using the IBM Blockchain Platform, traced and validated ethically sourced cobalt to demonstrate the responsible production and processing of cobalt in the mine to battery supply chain. Members are now actively applying the RSBN solution to its supply chains.	Huayou Cobalt, Ford Motors, LG Chem, IBM, Fiat Chrysler, Glencore, Volvo Cars.
CFDI - Cobalt for Development Initiative	2019	The CFDI is a cross-industry scheme that promotes sustainable cobalt mining in the DRC. The initiative is to establish a framework through which it can work with the ASM sector to procure metal while contributing to regional development by initiating training schemes and by engaging with local authorities.	VW, BMW, BASF, Samsuing, Google and others.

Raw Material Sourcing

DR Congo issues

RMI has become the standard for Cobalt powder producers. GEM (Shu Powders) and its competitors Umicore and Freeport are listed as "conformant cobalt refiners". http://www.responsiblemineralsinitiative.org/responsible-minerals-assurance-process/smelter-refiner-lists/cobalt-refiners-list/conformant-cobalt-refiners/?

Efforts by the cobalt industry to create a more responsible supply chain have resulted in progress on several fronts.

Name	Year	Scope	Participants
FCA - Fair Cobalt Alliance	2020	The alliance was launched as action platform for organizations along the supply chain who can engage and play a role in the transition to a fair production system. It seeks to transform small-scale mining in the DRC by supporting communities and improving overall mining conditions. It will seek to connect cobalt from ASM operations to the supply chains of global manufacturers.	Glencore, Huayou, Tesla, Fairphone, Sono Motors, Signify and others.
IRMA Initiative for Responsible Mining Assurance	2020	Together with Alliance for Responsible Mining (ARM), IRMA developed the "Standard for Responsible Mining" as a framework for raw material supply chains. The framework uses four key elements to assess a project: business integrity, planning for positive legacies, social responsibility and environmental responsibility.	BMW, Daimler, Microsoft, Anglo American, Arcelor Mittal and nume miners and technology companies.
Fund for Prevention of Child Labor in DRC Mining Communities	2020	In collaboration with the Global Battery Alliance, Unicef is raising US $21 million from industry stakeholders to fund a series of initiatives aimed at addressing the root cause of child labor in the DRC's copper belt region.	Organized by Unicef in collaboration with the Global Battery Alliance.

Raw Material Sourcing

Shu Powders' Raw Material Sources - Mines

Shu is sourcing Cobalt raw materials through its related companies GEM Co. and SMR Ltd:
GEM Co. Ltd and Glencore extend their long-term strategic cobalt partnership (press release, Dec 3, 2020)
Under the terms of the agreement, Glencore will provide around 150,000 tonnes of cobalt contained in hydroxide for GEM between 2020 and 2029. Glencore and GEM are committing each other to annual audits under OECD-aligned standards, specifically, the Cobalt Refiner Supply Chain Due Diligence Standard developed by the Responsible Minerals Initiative (RMI), Responsible Cobalt Initiative (RCI) and Chinese Chamber of Commerce of Metals, Minerals & Chemicals Importers & Exporters (CCCMC). Glencore is member of RMI.
Glencore repeatedly stated not to use artisanal mined Cobalt due to the link between child labor and artisanal small-scale mining (ASM). However, Glencore support the development of responsible ASM, working in partnership with others, such as the Fair Cobalt Alliance (FCA). https://www.glencore.com/sustainability

Fig 24a, Mutanda, Katanga: The facilities in the DRC are owned and operated by Glencore.

Fig 24b, Mutanda, Katanga are the largest Cobalt mines in the DRC and worldwide.

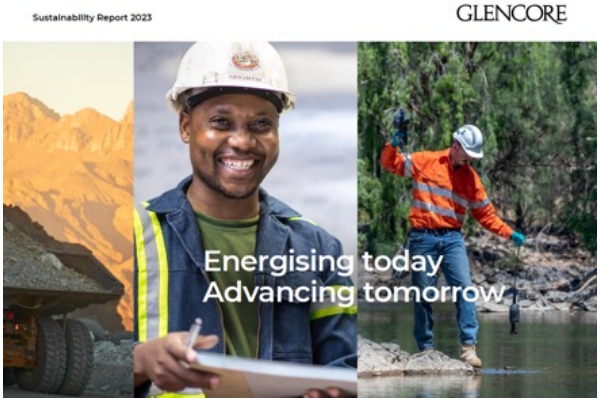


Fig 24c, CSR: Glencore issues a sustainability report every year, which is available on-line. For compliance see pages 53, 69. Glencore does not source from artisanal and small-scale mining (ASM), p 53.

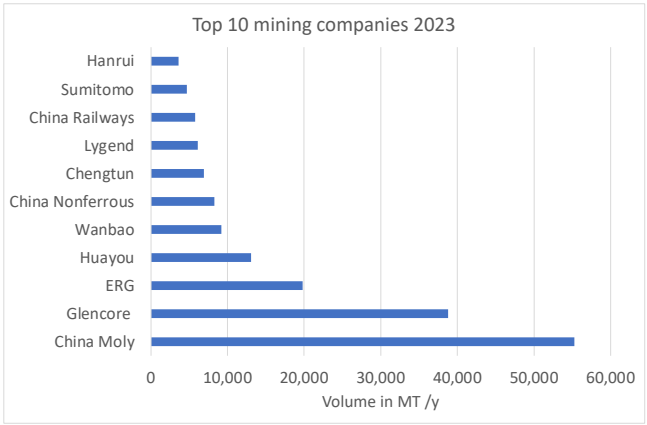


Fig 24d, Glencore produced an estimated 39000 MT of cobalt at its DRC (Katanga), Australia and Canada mines. Meanwhile, the company has re-opened its Mutanda. CMOC (China Moly) has taking the leading position with 56000 MT and further upside potential for 2024.

Raw Material Sourcing

Shu Powders' Raw Material Sources – Recycling GEM

GEM stands for "Green" "Eco" "Manufacturing" and originated from a green dream:

- On December 28, 2001, Professor Xu Kaihua founded GEM in Shenzhen.
- In 2003, the industrial concept of "limited resources and unlimited circulation" was put forward for the first time.
- On January 22, 2010, A shares were listed in Shenzhen Stock Exchange (stock code: 002340), and the SIX Swiss Exchange in 2022.
- GEM's annual output value of more than 30 billion yuan, employees of more than 10,000 people in 19 industrial parks.

Fig 25a, GEM business model:
New Energy Materials + Urban Mining

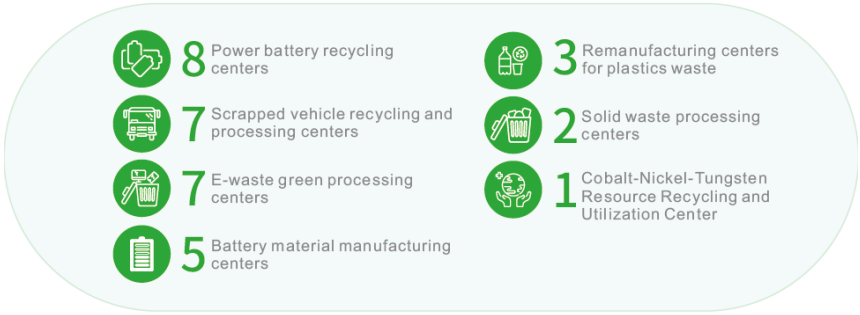


Fig 25b, GEM recycling share and market position

Fig 25c, GEM Sustainability report (ESG)
A corporate sustainability report is issued every year, available on-line at www.gemchina.cn
GEM is listed as "conformant Cobalt refiner" by the Responsible Minerals Initiative. (next page)

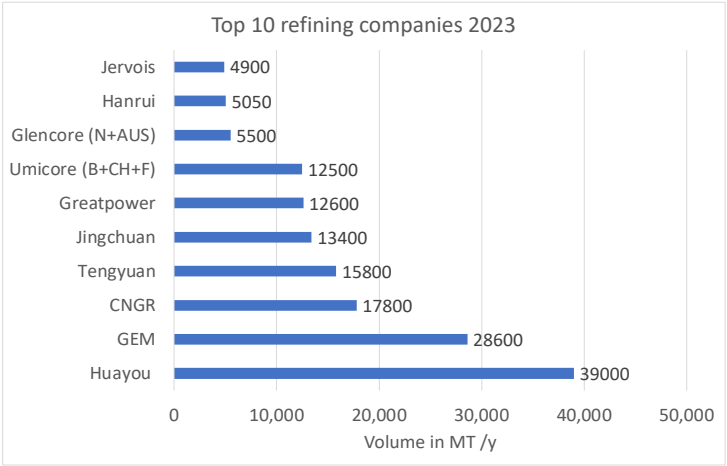
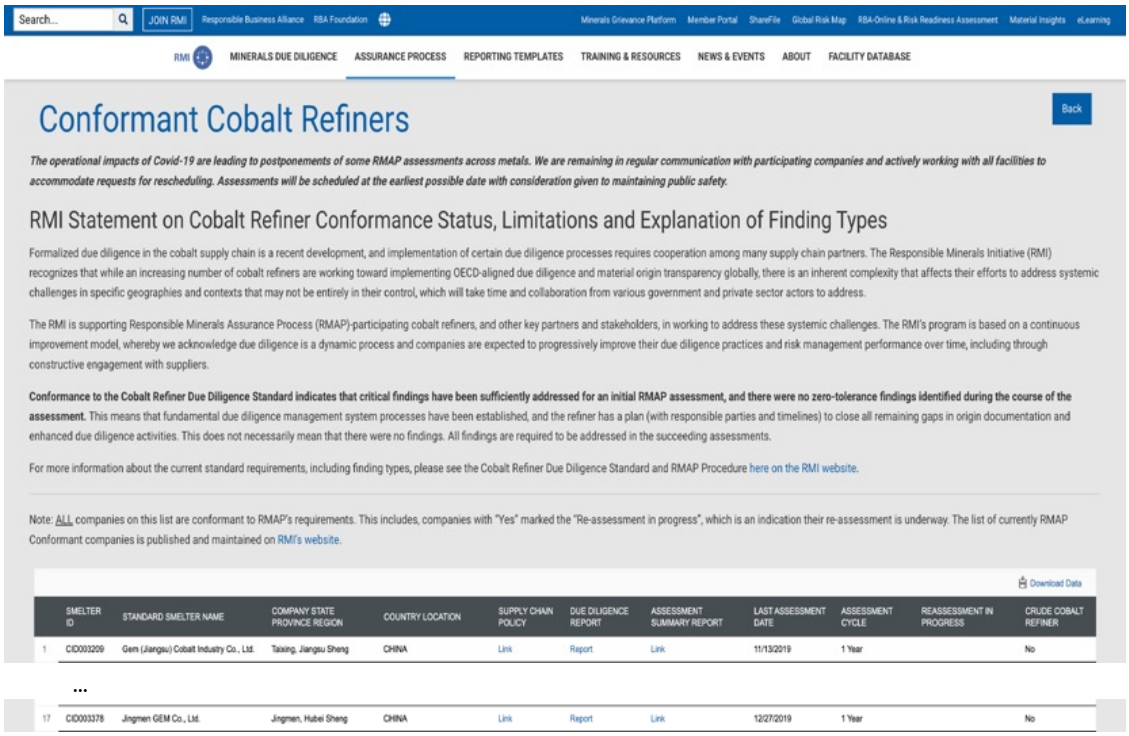


Fig 25d, GEM refined Cobalt volume was increased to 28600 MT in 2023 stable vs 2022. GEM keeps its second position in the ranking of global Co refiners.

Raw Material Sourcing

Shu Powders' Raw Material Sources – Responsible Sourcing

GEM has both its Cobalt refineries, GEM Jiangsu and Jingmen GEM, listed as RMI conformant Cobalt refineries under the following link. See Jingmen GEM on line 17 and GEM Jiangsu line 1.
https://www.responsibleminerals initiative.org/responsible-minerals-assurance-process/smelter-refiner-lists/cobalt-refiners-list/conformant-cobalt-refiners/

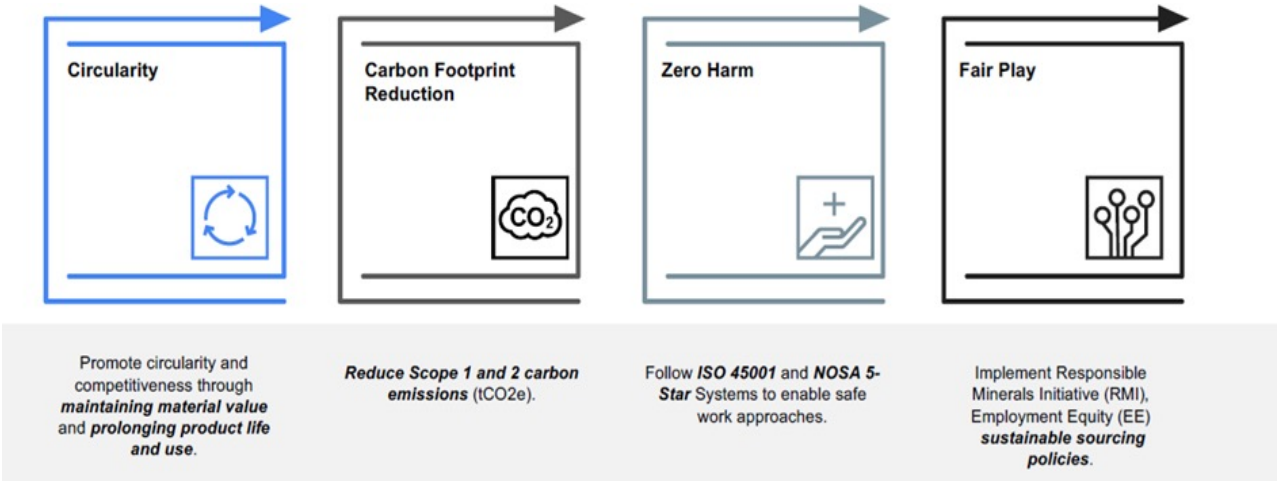


Shu Powders did undergo an RMI compliance audit for a specific customer and has integrated the OECD standard into its Integrated Management System (IMS).

Sustainability

Our Sustainability Journey

In response to changing needs and expectations of stakeholders we have decided to focus our sustainability activities across four key areas as recommended by Sandvik. We see these as strategic areas in which to ensure we are a responsible business that minimizes the impact from our business on the environment, our employees and our wider community



In October 2022, we conducted a survey of our customers as well as our internal stakeholders to identify some of the key focus areas for both groups across the three components (packaging, product and process)/ The image below highlights the areas that were prioritised by our customers, by our internal stakeholders and the areas of overlap between the two. It is important to note that some of the priority areas identified by customers are already being actioned by Shu and therefore weren't identified as priorities for Shu. The key roadmap actions were highlighted to ensure improved alignment with our customer expectations going forward.

Certifications

CERTIFICATE

This is to certify that

Shu Powders Africa (Pty) Ltd

Logra Industrial Park
No.40 Track 94040
Harrison Flats, Old Main Road
Cato Ridge, 3680
KwaZulu Natal
South Africa

has implemented and maintains an
Occupational Health and Safety Management System.

Scope:
Sales, Marketing and Production of Cobalt Powder.

Through an audit, documented in a report, it was verified that the management system fulfills the requirements of the following standard:

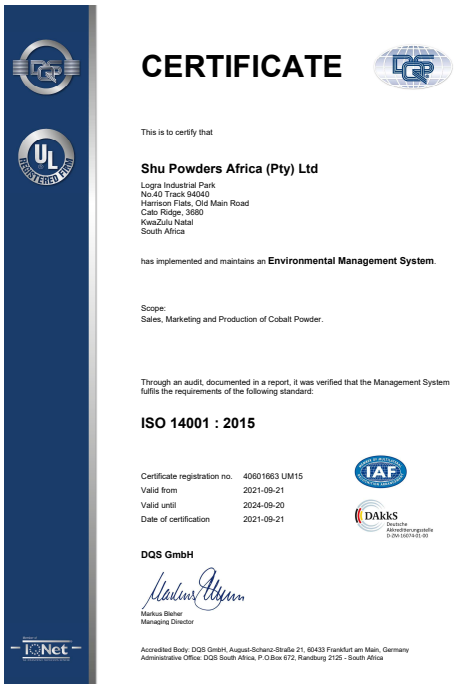
ISO 45001 : 2018

Certificate registration no.	40601663 OHS18
Valid from	2021-09-21
Valid until	2024-09-20
Date of certification	2021-09-21

DQS GmbH

Markus Bleher
Managing Director

Accredited Body: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main, Germany
Administrative Office: DQS South Africa, P.O.Box 672, Randburg 2125 - South Africa



CERTIFICATE

This is to certify that

Shu Powders Africa (Pty) Ltd

Logra Industrial Park
No.40 Track 94040
Harrison Flats, Old Main Road
Cato Ridge, 3680
KwaZulu Natal
South Africa

has implemented and maintains an **Environmental Management System**.

Scope:
Sales, Marketing and Production of Cobalt Powder.

Through an audit, documented in a report, it was verified that the Management System fulfills the requirements of the following standard:

ISO 14001 : 2015

Certificate registration no.	40601663 UM15
Valid from	2021-09-21
Valid until	2024-09-20
Date of certification	2021-09-21

DQS GmbH

Markus Bleher
Managing Director

Accredited Body: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main, Germany
Administrative Office: DQS South Africa, P.O.Box 672, Randburg 2125 - South Africa

CERTIFICATE

This is to certify that

Shu Powders Africa (Pty) Ltd

Logra Industrial Park
No.40 Track 94040
Harrison Flats, Old Main Road
Cato Ridge, 3680
KwaZulu Natal
South Africa

has implemented and maintains a **Quality Management System**.

Scope:
Sales, Marketing and Production of Cobalt Powder.

Through an audit, documented in a report, it was verified that the Management System fulfills the requirements of the following standard:

ISO 9001 : 2015

Certificate registration no.	40601663 QM15
Valid from	2021-09-21
Valid until	2024-09-20
Date of certification	2021-09-21

DQS GmbH

Markus Bleher
Managing Director

Accredited Body: DQS GmbH, August-Schanz-Straße 21, 60433 Frankfurt am Main, Germany
Administrative Office: DQS South Africa, P.O.Box 672, Randburg 2125 - South Africa

NOSA®

★★★★★

Grading Audit

This is to certify that

SHU POWDERS AFRICA (PTY) LTD
(RESTRICTED OUTCOME)

has been assessed by NOSA against the provisions of the

NOSA INTEGRATED FIVE STAR SYSTEM

Occupational Health, Safety and Environment Management
Incorporating ISO45001:2018 and ISO 14001:2015 requirements

★★★★★

The star rating above and the seal below, were hereto affixed in the presence of:

Johan Rheeder
Technical Manager Auditing

NOSA

Certificate No: 1931

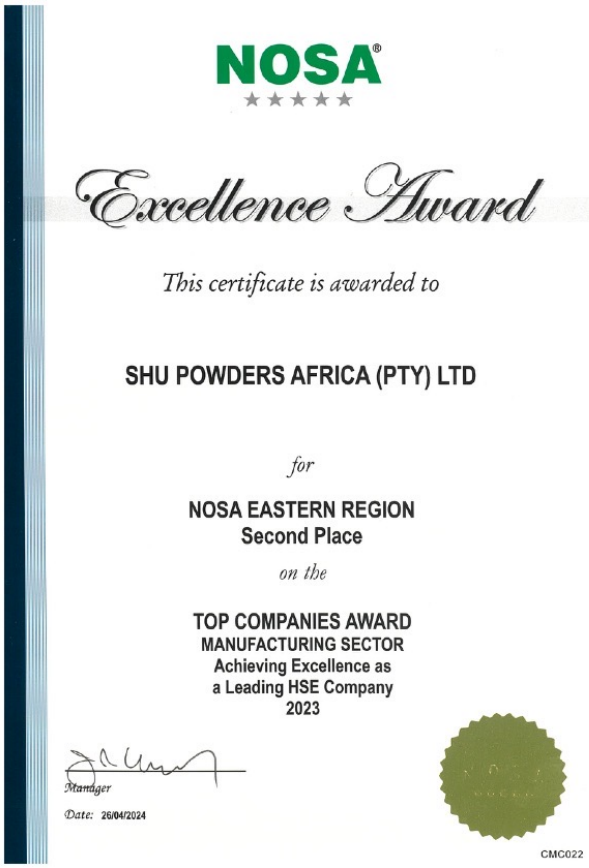
Date: 04 - 06 December 2023

Valid Until: 03 December 2024

Awards

WE ARE A LEAN DIAMOND 2023

BRONZE 2023 ecovadis Sustainability Rating



NOSA ★★★★★

Excellence Award

This certificate is awarded to

SHU POWDERS AFRICA (PTY) LTD

for

NOSA EASTERN REGION
Second Place

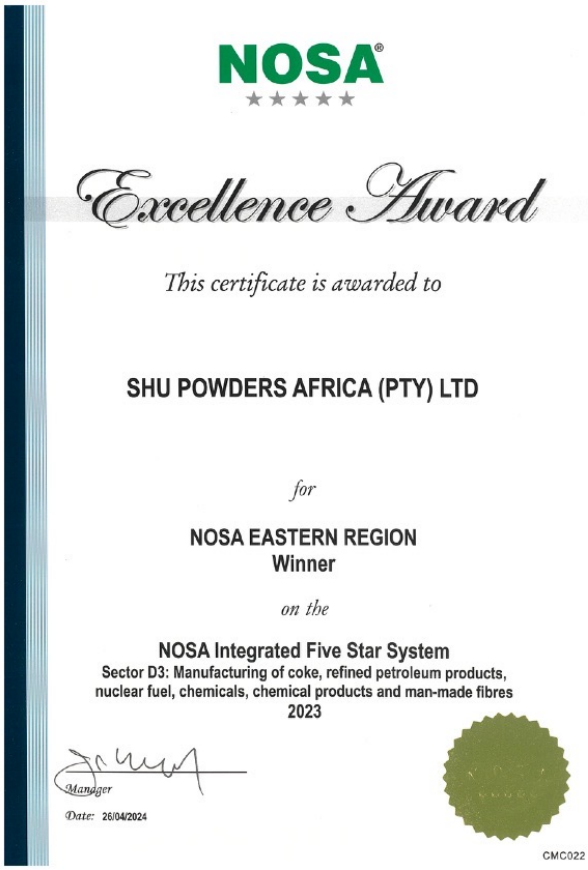
on the

TOP COMPANIES AWARD
MANUFACTURING SECTOR
Achieving Excellence as
a Leading HSE Company
2023

Manager

Date: 26/04/2024

CMC022



NOSA ★★★★★

Excellence Award

This certificate is awarded to

SHU POWDERS AFRICA (PTY) LTD

for

NOSA EASTERN REGION
Winner

on the

NOSA Integrated Five Star System
Sector D3: Manufacturing of coke, refined petroleum products,
nuclear fuel, chemicals, chemical products and man-made fibres
2023

Manager

Date: 26/04/2024

CMC022

Certifications

Health, Safety and Environmental Policy

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Shu Powders Africa PTY. LTD
Logro Industrial Park No.40 Track 94040, Harrison Flats
Old Main Road, Cato Ridge, KwaZulu Natal 3680 South Africa
Postnet Suite 10015, Private Bag X7005, Hillcrest, 3650

Vat No: 4150833551 CK No 2007/000865/07

SAFETY, HEALTH AND ENVIRONMENTAL POLICY

Shu Powders Africa is a reputable manufacturer of cobalt, and is committed to continual improvement in safety, health and environmental performance. This is non-negotiable in our drive towards a ZERO Tolerance/ ZERO Harm culture.

- We believe that all injuries, all adverse health effects resulting from work activities, and environmental incidents are preventable;
- The safety of our employees, visitors and contractors is a non-negotiable value;
- We are committed to the protection of the environment, including the prevention of pollution.
- Leaders at all levels in the organization are role models in the management of safety, health and environmental matters and shall lead by example in all situations.
- At-risk behaviors are not acceptable and are addressed when observed; and
- Excellent safety, health and environmental performance are recognized as good business practices.

To achieve our goal we are committed to:

- Meeting all applicable compliance obligations;
- Operate in accordance with industry and customer codes of practice and voluntary requirements to which we subscribe, including group policies, agreements with regulators and communities, REACH, CI (the Cobalt Institute); SANS 1929:2011; the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, and NOSA CMB253N.
- Educate and train, motivate and support our staff and suppliers in the application of this policy and associated procedures;
- Reducing consumption and wastage of materials through recovery, rework and recycling where possible;
- Eliminating hazards and reducing OH&S risks;
- Continuously consult, seek and promote the participation of workers, and worker representatives.
- Continually improve our safety, health and environmental system and performance through monitoring, preventive action, education and training;
- Develop new business opportunities that provide a sustainable future;
- Create a framework for setting and reviewing objectives and targets as stated in this policy.

We therefore commit to being a socially responsible employer in the interests of the community, future generations, and all our other interested parties.

Signature: _____ **Date:** 21-06-2021

Managing Director

Policy-002 **Managing Director: Dr Michael Oehlers** Rev. 9

Certifications

Quality Policy

SHU POWDERS T: +27 31 782 1061 F: +27 31 782 1160 W: www.shupowders.com

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Vat No: 4100388021 CK No: 2007/000865/07

QUALITY POLICY

Shu Powders Africa is committed to establishing and maintaining ourselves as a quality manufacturer of cobalt. To achieve this goal, we are committed to:

1. satisfying our customers and other interested parties' requirements and expectations, including relevant customer codes of practice, in the quality of product and service,
2. seeking to understand and address the relevant external and internal issues.

We are committed to establish, maintain and continually improve on a Quality Management System (QMS) that conforms to the ISO 9001:2015 requirements.

As Managing Director, I undertake to ensure that our Quality Management System is thus directed towards achieving the following objectives:

- Only accepting orders and contracts within our managing capacity
- Planning all business activities and improving on the planned time allocations
- Employing and developing people who have the necessary skills and experience to improve our product and service
- Supporting and developing external providers of products and services who are committed to Quality Improvement
- Reacting to problems quickly and systematically and fostering a team approach to problem solving
- Aiming to deliver on time; recognising that deadlines are a crucial part of our business
- Ensuring that we address compliance obligations that pertain to our product.

The SHEQ Officer has been appointed as the Management Representative regarding all aspects of the ISO 9001:2015 Quality Management System.

Signature: _____ **Date:** 13-07-2021

Managing Director

Policy-003 **Managing Director: Dr Michael Oehlers** Rev. 10

Glossary

- **Biological monitoring:**

Is the measurement and assessment of workplace agents or their metabolites either in tissues, secreta, excreta, expired air or any combination of these to evaluate exposure and health risk compared to an appropriate reference. All the medicals consist of the following examinations:

- Audiometric Testing
- Eye Test
- Chest X-ray
- Lung Function
- Physical exam
- Cobalt vs Creatinine (urine testing)
- Cobalt in Blood

- **ASTM D1739-94:**

The standard test method for collection and measurement of dustfall (settleable particulate matter).

- **Lost time incident:**

Lost time injury is when an employee gets injured in the course of his employment and is unable for perform the regular duties for a complete shift. This is not just limited to one regular shift only, but it can extend up to all the shifts in which the employee is unable to perform the regular duties. So from the time of the initial injury until the time the employee is able to return to regular work duties. None of the LTI's caused interruption of production or business.

- **Risk Assessment:**

The evaluation of the risks of existing substances or conditions to man, including workers, and to the environment, in order to ensure better management of those risks.

Reference List

- [Ref 1] Concise International Chemical Assessment Document 69. Communication with Dr. Do Vale of CATOMED Clinique, in Cato Ridge, KZN, South Africa.
- [Ref 2] APEX study 2010, 2012, 2014, 2016
- [Ref 3] Dust detection device: SKC- Airchek sampler
- [Ref 4] Amnesty International Report, January 19,2016 www.amnesty.org/en/documents/afr62/3183/2016/en/
- [Ref 5] London Metal Bulletin Articles, March 29, 2016.