

FEB 2024

HSE&S WORLD



OHSSAI FOUNDATION

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— *From Chairman's Desk*



Mr. Avdesh Malaiya

Connecting the Dots

I feel very proud to see where we are today. When I look back to 2014, I remember I had the vision for OHSSAI, but no resources to put it in place. I still remember the first event at HSE, where I realized that though I was in a senior position in my organization, very few Heads of HSE&S knew each other. It was a pain point for me that though we all are in a noble profession of saving lives, we are still disconnected within the fraternity. That was a trigger when I started putting the blocks together to build an organization, which brings the senior fraternity together not only to work for industries but also to pay back to society because accidents are higher in society than that taking place in industries.

With years, the like-minded fraternity from across all the sections like, Mr. Sunil Bhalerao, Mr. Murali P A, Mr. Sanjay Karajikar, Mr. Love Patadiya, Mr. Murali T R, Mr. Shankar R, Mr. Pankaj Singh, Mr. Abhijit Harne etc joined the OHSSAI journey from front and rest of them supporting and pushing it from the back. With so many driving forces behind the OHSSAI, we have always thought of doing the things differently and doing the things that are not done by other HSE&S professional bodies. The legal battle of PIL filled by OHSSAI showed that we do not just believe in preaching, but believe in doing the things, even if it requires a bold step. Though the PIL was rejected, OHSSAI was seen as an organization who is putting efforts to bring an impact at the policy framework itself, and the move was appreciated by the entire fraternity.

With initiatives such as

1. Initiatives in Housing Societies with the “FiveS” tool, jointly with JLL.
2. Initiatives in Schools and colleges with Sona College of Technology and Indrashil University.
3. Initiatives on Road Safety among the Young Generation with the involvement of the parents.
4. Initiatives to bring Industry-Government-Academia together on all our initiatives.
5. Initiatives on best practice experience visits with feasibility and cost-benefit analysis tools.
6. PIL in High Court of Mumbai, for the HSE&S profession and professionals, etc.

They all have been the differentiators for OHSSAI where there is a need for professional interventions. With the mission & vision and with the support of the entire fraternity, OHSSAI has set its benchmarking standards in all the domains where it is working.

The opening of the OHSSAI UAE chapter has been a feather added to the efforts made by the entire fraternity to make it the first “Make in India” professional body in HSE&S to go international and showcase that the Indian talents are being recognized around the world, as per the mission of Government of India. The OHSSAI UAE torch has been taken by Dr. Haridas Nair with a vision to spread the OHSSAI from a region where delegates from across the globe come. The energy and the passion carried by him will surely take us to new heights and serve humanity by protecting our precious human lives.

There is a long way to go and a lot of space for OHSSAI to work, bring an impact, and be focused on “Enhancing HSE&S Culture” within industries and society. Our growth plans include.

1. Strengthening of Regional Chapters to make them self-sustained.
2. Creation of Special Interest Groups (SIGs) in all the industry sectors like O&G, Steel, Cement, etc.
3. Opening international chapters and making them self-sustained.
4. Expanding the reach of current programs with annual campaigns.
5. Collaborating with IITs, IIMs, and other premium institutes and bodies to bring a focused approach towards common goals.

If you feel that we share the same though process on these agenda, then come let us join together and put efforts toward the common goals, unitedly. Be among the change makers, be a change agent, be at OHSSAI.

SMART EHS INITIATIVES

1. KNOWLEDGE MANAGEMENT PORTAL



Purpose

For an organization to have a decent growth, especially for the ones with multiple units across the country, it is important that the achievements or best practices from each of its employee or unit are shared, celebrated & learned from by all the other units. This sharing of ideas encourages the partnering units to learn, innovate & implement more such ideas resulting in the overall or parallel development of the Organization.

Initiative

*This might seem easy said than done, but We at DIAGEO India, have proudly established one such **online portal: KMS 'Knowledge Management System'** with the aspiration of providing a single platform for our employees across PAN India, where they can share any **Innovative & Extraordinary Safety Kaizens** or Job Simplifying implementations that they have done in their unit, which can be accessed by all the other employees & implemented or modified according to their unit requirements,*

Impact

This has significantly improved the uniform development across all the units leading to the overall best performance of the organization at the global level. A part of horizontal deployment tool.

2. SAFETY TRAINING KIOSK (STK)

What made us think of it

Earlier, when people used to visit the company, they were given a brief safety induction in the form of a set/ pre-recorded visual presentation with no surety whether the person has genuinely understood the safety regulations required for entering the company premises. This is when we thought of introducing Safety Training KIOSK (STK).

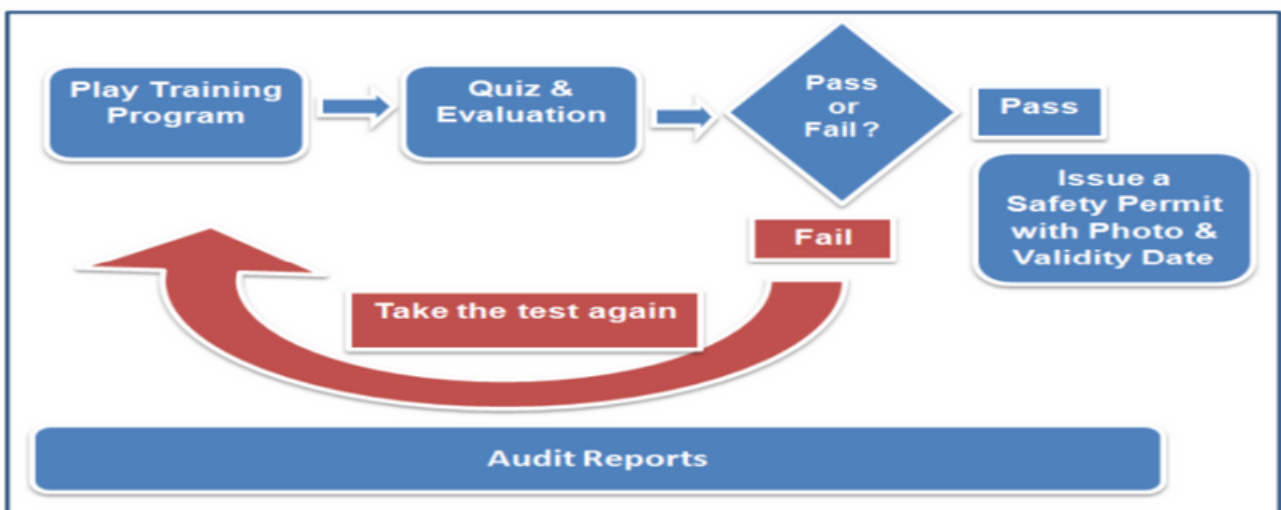


What is it Exactly

Safety Training KIOSK or STK is an easy self-help training program that comprises two components i.e., a touchscreen-based KIOSK which can be operated by the user through a very user-friendly interface and software which helps in creating and organizing this program without any prior knowledge or training. STK is very useful for industries like chemicals, petrochemicals, pharma, and IT. It's an integrated system and hence comes equipped with all the necessary hardware/software and training modules.

What is the impact

Once the person completes all the training modules, they are required to answer certain questions where they receive a pass or certification of validation on answering correctly. This certification is valid for the next 6 months, which is proof that they have successfully completed their induction.



ELIMINATION OF NON-RECOVERABLE WASTE

Context

The processing of glass into the required windshield goes through different steps. One of our processes includes glass cutting and grinding which generates glass grinding powder. On average it generates 1.8 tons on a monthly basis and 21 tons on a yearly basis. This quantity increases with an increase in volume. Initially, this quantity was being sent for Landfilling through authorized agency



Glass Sludge



Mixed with Concrete



Final Product – Concrete Block

Learning Re-application

Based on the results, this sustainable solution was horizontally deployed at our other Sekurit sites too i.e. Sekurit Chennai (Tamil Nadu) and Sekurit Bhiwadi (Rajasthan), extending the same resource to them.



Glass Grinding Powder - Land filling

Exploring Solutions

We not only wanted to solve this issue but were trying to find a sustainable solution. We were continuously putting efforts into the past few years, did several trials & explored ways to find the best workable solutions like using them as paving blocks or bangle manufacturing or toys, etc however they couldn't materialize due to different reasons. Later, we could not only find a sustainable solution but also found a resource that recycles and reuse the glass grinding sludge as raw material for their product. The sludge is used for making concrete blocks by block manufacturers. By this, we have eliminated the impact of non-recoverable waste on the environment. Now, the glass sludge is 100% Recoverable & reused.

Now, all the 03 nos. plants of Saint Gobain Sekurit India are 'Recycling and Reusing Glass Grinding sludge'.

SAFETY SHOULD BE CORE VALUE

"DRIVE FROM TOP TO BOTTOM APPROACH"

Introduction

Leadership plays a key role in driving a safety culture in any organization. It is expected from leadership that they follow the principle of "Walk the talk". You achieve the Safety standards that you demand and strive for. Good levels of Safety standards can be achieved through systematic competency development techniques and deploying the right resources for the critical tasks within the organization. It is also important to prioritize the identified risks and then strive to mitigate the risks by instituting adequate controls and strengthening the safeguards. In today's world this can be achieved using suitable IT / Digital technology tools.

Following are some of the examples used by Tata pigments Ltd to strengthen their safety Culture:

- **Visible Felt Leadership:** By being with the people on the shop floor and understanding their concerns and then taking necessary corrective and preventative actions.
- **Safety Governance Structure:** Through the proper framework of vision, Mission, Value, and Safety objectives with proper tracking and monitoring apparatus in place.
- **Safety Competency at each level (Creating a Safety Culture from Caring):** By using the training needs Identification (TNI) model and bridging the gaps through consultative mechanism.



Felt Leadership 2.0 Training among Officers

- **Long-term & Short-term Safety Strategy:** Using Cross-functional teams approach and thereby developing short-term and long-term KPIs suitable for the company. Also, develop performance-driven culture by linking performance to positive recognition schemes.
- **Lack of Process Safety Management:** Deployment of process safety management in high-hazard critical equipment with an adequate effective barrier to prevent the incident and to reduce the impact of barrier failure, preferable it should be from the design stage.
- **Automation and Mechanisation:** Study the past incident, Manual task, and Man & Machine intervention activities, and identify, and provide resources within the timeline.
- **Technological interventions:** initiated starting with Process Safety Management in Manufacturing industries. Digital technology system with an operating system developed Like Sensor & alarm, Process Software. Monitoring system of parameters & set their frequency as per requirement.

- **Digitalization:** Driving policy into practice, maintaining compliance, creating digital workflows, facilitating critical communications, adding competence management, compiling lessons learned, auditing and action tracking, and Keeping track of key performance indicators (KPIs). Going beyond compliance.



Automated Elevating during working at height activity



Basic Principles of Management of Change

Key Initiatives

- Presence of the Managing Director in the senior Leadership training program launch.
- Working at height using scan climber - automated elevating working platform & has rack and pinion technology to perform work at height.
- Technological intervention in Heavy vehicle and mobile equipment -Driver fatigue monitoring system, anti-tilt, Dalla buzzer, and back sensor camera
- Auto fire suppression system in mobile equipment.
- CCTV camera for real-time monitoring of remote operations.
- Fume extraction system as a health initiative.



Fumes Absorber in Chemical Tank



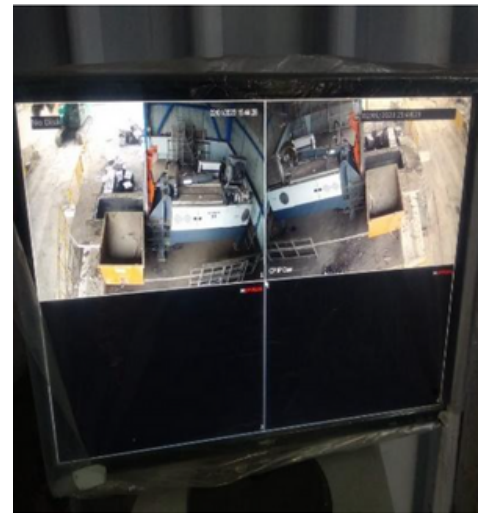
Fumes of Extraction System Lab



Technological intervention in Heavy vehicle and mobile equipment



Anti-tilt, Dalla buzzer



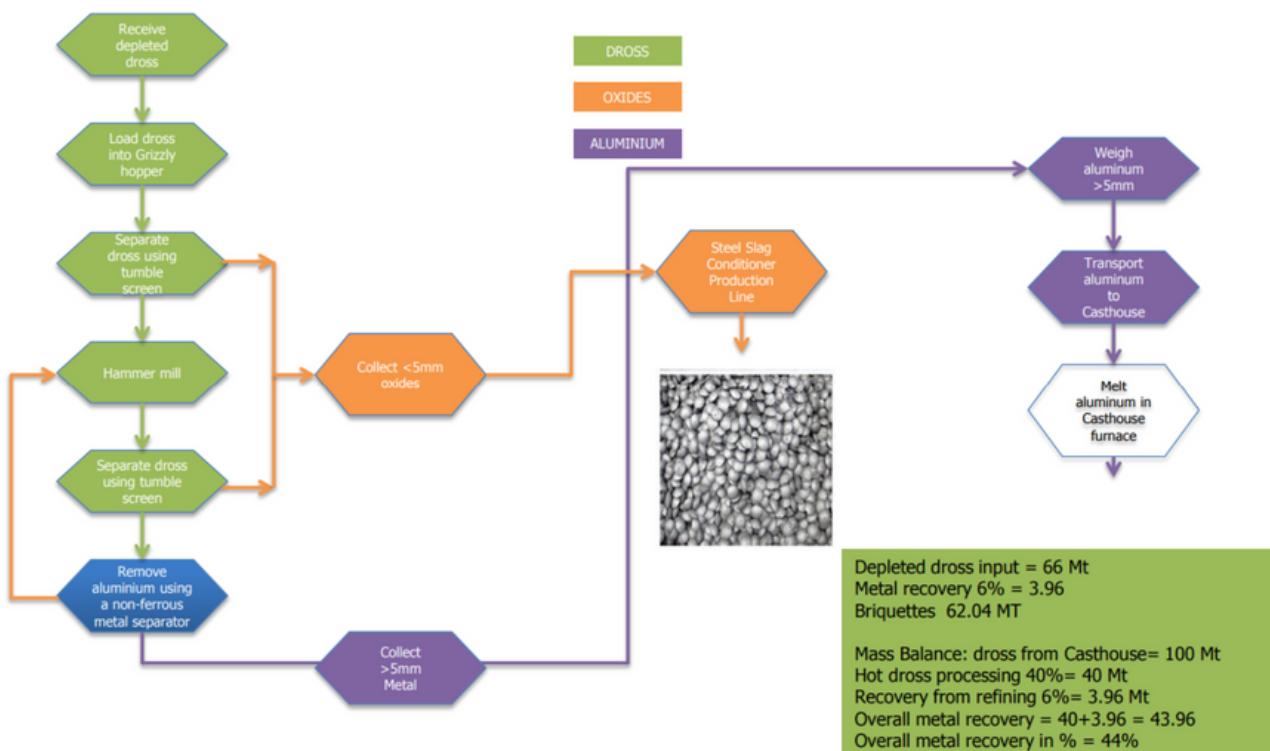
**Real-time Monitoring
High Risk**

HAZARDOUS WASTE RECYCLING MANAGEMENT

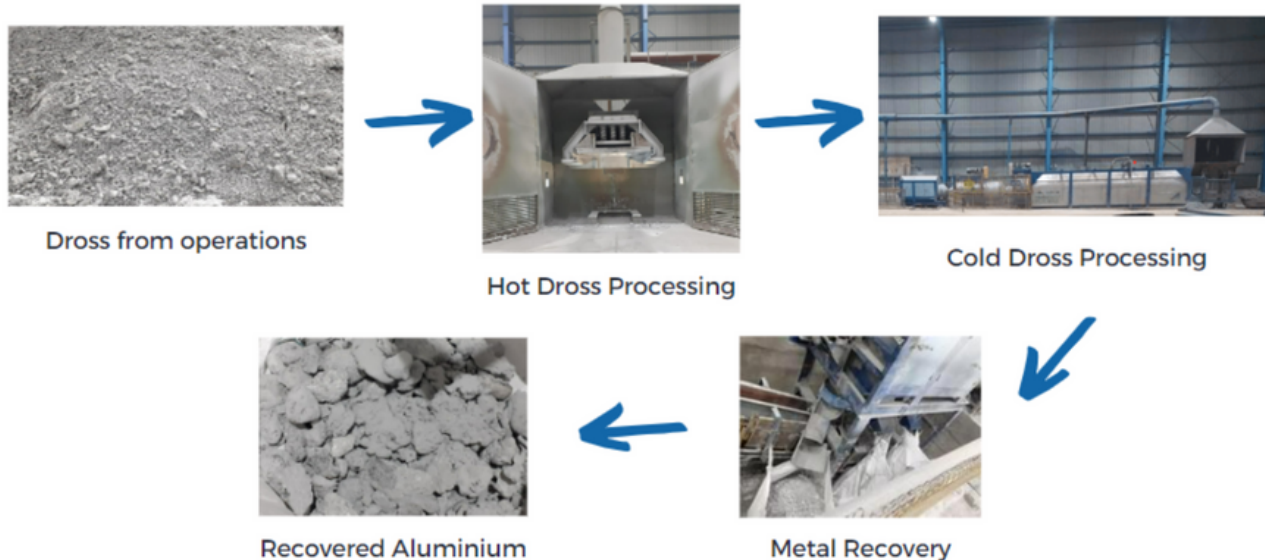
Introduction

At BALCO, we take responsibility for our planet, communities, and workforce. This is imbibed across BALCO through the vision of Zero Harm, Zero Waste, and Zero Discharge. To achieve Zero waste, we are driving various waste management initiatives such as fly ash disposal through rakes to cement industries, spent pot lining waste, and shot blast dust being utilized by authorized recyclers. In addition to this, we have an inbuilt facility in our plant at Korba, Chhattisgarh for processing the dross generated from our operations. We have collaborated with Runaya for this metal recovery project from dross which imparts circular economy to our Zero waste philosophy. This provides a circular solution for the recovery of aluminum and processing residual waste from aluminum smelters, in the last stage of commissioning.

We commissioned this facility during the year 2020 at our site. On a monthly basis, roughly 700 MT of dross is generated from our operations, and we process this entire dross generated. Initially, the dross is fed into a hot dross processing unit where the molten aluminum is recovered from the stage 1 process. Further, the hot dross is fed into cold dross processing machine where the cooling takes place and the dross is crushed with the help of a ball mill. After stage 2, the particles of less than 5mm get collected as non-metallic powder and are sent to stage 3 for slag production utilized in the steel industry. The particles above 5mm are collected through an eddy separator and the material is known as recovered aluminium. This recovered aluminum is sent back to cast house operations for melting. Below is the process flow of the above solution:



The pictures below briefly explain the process sequence:

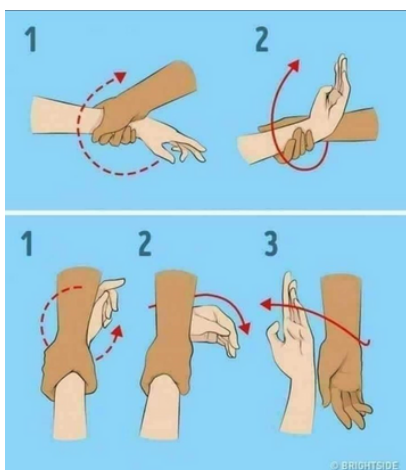
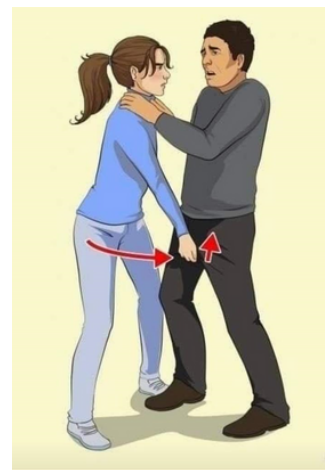
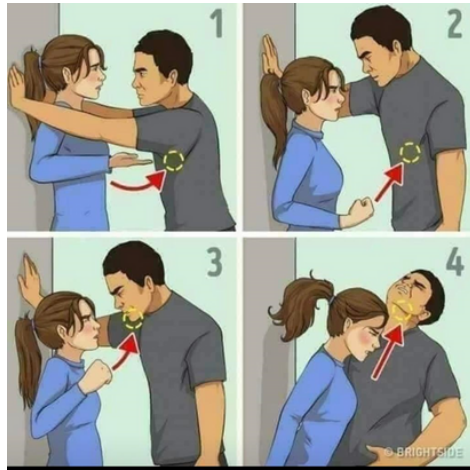


This approach of us towards circular economy leads to monthly savings of nearly Rs. 40 Lakhs, which can be further used to strengthen the metal recovery process. This project has resulted in 100% utilization of hazardous waste with a 35% metal recovery rate.

The top management of BALCO is quite driven by the ethos of sustainability and are very proud of this project.

— Women Safety Management

SELF DEFENCE TECHNIQUES FOR WOMEN



STARTLING SHOCKERS

Does traffic noise affect work performance?

Gothenburg, Sweden -

A relatively low level of noise from outdoor traffic can have cognitive effects on workers inside nearby buildings, according to Swedish researchers. A team from Chalmers University used a laboratory that had a speaker system that let researchers simulate sounds such as outdoor traffic. Participants took tests in which letters were displayed and they had to press buttons – all while being subject to various noises. The researchers found that noise levels as low as 40 decibels affected work performance. “Near busy roads, it is difficult to achieve good indoor sound environments, even with well-insulated buildings and windows,” the researchers said. The study was published in the *International Journal of Environmental Research and Public Health*.

“In the News” is written by Safety+Health Associate Editors Barry Bottino, Kevin Druley, and Alan Ferguson.

Study links performance-related pay to poor health

Aberdeen, Scotland -

Workers who are compensated based on their performance are at higher risk for heart disease, chronic stress and poor mental health, results of a recent study show. Although “performance-related pay” systems can have positive outcomes, researchers at the University of Aberdeen in Scotland note that studies conducted over the past two decades have found links between these systems and poorer health. However, those studies “have been inconclusive and largely based on self-reported data, which is vulnerable to bias.”

For their study, the researchers looked at data from the UK Household Longitudinal Study, which includes medical information on physiological measures of stress, including blood pressure and stress biomarkers in blood samples.

Findings show that performance-related pay systems are associated with higher blood pressure and subpar mental health. Men, in particular, exhibited higher indicators of chronic stress.

“Chronic stress in PRP employees may be due to the need to put in more effort at work, work under time or performance target pressure, or stress associated with an uncertain income stream,” study co-author Daniel Powell said in a press release. “Regardless of the causes, chronic stress may exacerbate health issues by adding strain onto physiological systems or leading to unhealthy coping mechanisms such as alcohol and drug use.”

Added study co-author Keith Bender: “Our results indicate the use of PRP contracts may have unintended consequences for employee health, impacting on employee well-being and long-term productivity in the workforce. With this in mind, it’s important for firms to consider the potential impact on their employees and implement policies to support their well-being.”

The full study was published online in the journal *Industrial Relations*.

Source: Safety+Health - An NSC Publication (Aug’23 Edition)



OHSSAI FOUNDATION

We also provide our consulting and advocacy services in the field of trainings, audits, inspections and various surveys specific to each organization requirements in the domain of HSE & Sustainability, Lean manufacturing, Gemba Kaizen and various ISO certifications such as 9001, 45001, 14001 and 39001, etc. Reach out to us for Training Programs, Audits, Surveys, etc. for your organization.

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