Press Metal Aluminium Holdings

Need

Press Metal was evaluating for comprehensive and robust health and safety softwares that were capable to address safety reporting and permit-related requirements.

Challenges

Software discussions and demonstrations piqued their interest in EHS software and e-PTW – both aimed at complete automation of the reporting environment.

Benefit

The company's results were efficiency focussed – due to streamlining permit processes and creating reporting capabilities for incidents, CAPA and site inspections, EHS professionals were more informed. It improved planning, risk assessments and simplified previous laborious processes.

Press Metal Aluminium Holdings is a Malaysian-based aluminium company that stands as one of the largest integrated aluminium producers in South-East Asia. From upstream smelting activities to downstream extruding operations, Press Metal is a fully integrated producer of quality aluminium products such as ingots, billets – with up-to-date facilities and technical know-how, it is a major provider of a wide range of aluminium extrusions in a variety of finishes. With 7, 60,000 MT smelting capacity and 1, 60,000 MT extrusion capacity and 10 plants across UK, Australia, china and Malaysia, they have more than 4000 employees currently working in their premises.

## The increasing risk landscape in Press metal

The overseas operations of Press Metal have carved a firm niche in the global aluminium production market – backed by more than 25 years of experience and expertise in this industry, their extrusion plants and aluminium smelters are equipped with modern facilities.

Production, smelting and extrusion area operations for aluminium are laden with hazards and complexities. One typical hazard associated with aluminium production is the potential over-pressurization of the digester while treating bauxite with caustic solutions. Likewise, the production area is filled with heavy machineries and equipment – it has fire involving mobile equipment, hydraulic oil, rotary kilns, transformers, drive motors, conveyor systems, crushers, and other large motors. Permit systems remain essential while carrying out work in such high-risk areas.

With the basic inputs of alumina, electricity and carbon, Press metal aluminium smelting plants operate on a continuous basis - they generally have several pots electrically connected with each other in series called pot-lines, with several pot-lines in a smelting facility installed in a large hall known as a pot room.

Occurrence of an electrical fault in one pot can render the entire pot line frozen, in failure of timely corrective actions. In case of eventualities like 'tap out' (leakage of molten metal due to failure of shell of the pot), appropriate ways and procedures are essential in handling such phenomenon.

Workforce involvement remains critical to such high risk operations – they face various other physical and chemical hazards and challenging scenarios as they work. Improper handling of molten metal pave the way for accidental spills and water contact can deteriorate the conditions further - can result in steam explosions.
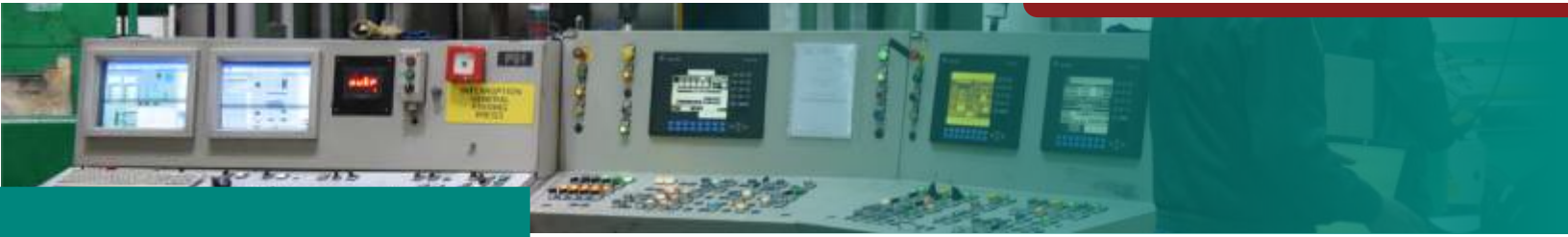
Solution

e-PTW

☞ Overview of people and site activities

☞ Increase on hands-on tool time and reduction in preparation of permits

☞ Proper information management

EHS management software

☞ Accident, incident and near-miss reporting software capabilities

☞ Real-time interactive dashboards and graphs enabled ready-to-use safety analytics for management purposes

☞ Role-based approval workflows eliminated permit escalation confusions

Such an increasingly complex and intricate environment can face a cumulative impact even in case of a minor failure – addressing these challenges effectively is not merely an issue of avoiding losses or complying with regulations. These demand material and process compatibility assessments – a proactive vigilance on physical manufacturing systems and an established control mechanism that drives safety and provides a dedicated support framework to the workforce and EHS professionals.

Press metal was looking for a proactive, forward-looking, system level approach to manage these EHSQ risks. They comprehended the fact that managing the risks of complexity by relying on traditional tools such as pen and paper can fall short in meeting their current workplace challenges. A fragmented, siloed reporting process spread across multiple parties and data sinks prevents safety personnel from cultivating an uncompromised and highly responsive safety program. It also consumes vast amounts of time and resources and, quite critically, results in an inability to effectively curtail the quantity of lost time and lost days.

Making better and proactive decisions in complex environments

One of their Malaysian consultants approached ASK-EHS for a digital permit to work solution and the EHS management software to enhance the process of gathering and synthesizing their safety data across their organizational and industrial boundaries.

Prior to ASK-EHS contact, a small tool was already in place in Press metal. But their interest of a detailed safety solution fetched them EHS management software that allowed them to build more effective EHS capabilities in their organization.

During their first project kick-off meeting in March 2019, their interaction with ASK-EHS experts was more about exploring the EHS management software and an automated solution to manage permits. Pen and paper methods were in place effectively, but they expressed their inconvenience of storage and proper data traceability in events of audits and inspections.

In the next 4-5 rounds of online discussions, ASK-EHS software professionals gathered their requirements for both the softwares. Uncertainty impacts processes, actions, and decisions - understanding how to identify and address risks is hence, a part of nearly every business action. Even Press metal executives were keen in implementing the solutions, for both of the existing plant hazards and threats were a source of risk. It was vital to critically examine them in the context of operations and project planning.
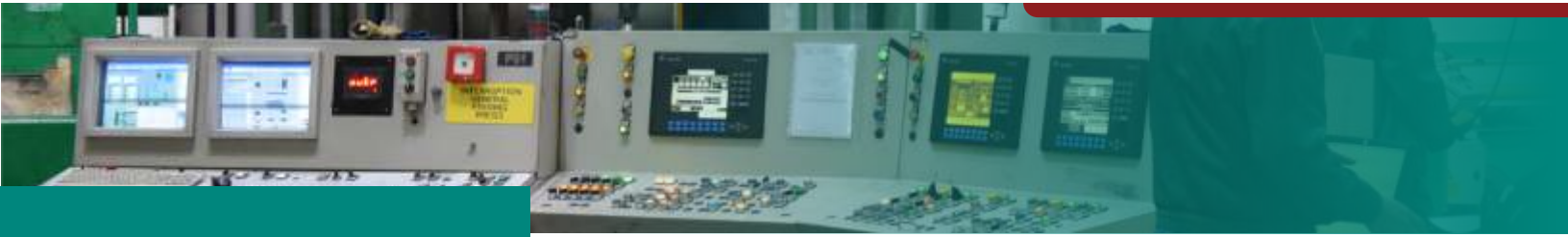
The streamlined software alternative

EHS software added an extra layer of risk mitigation and management to their overall industrial safety processes – they secured their crucial incident, CAPA, site inspection data via fine-tuned and customized EHS software. Software revisions and adaptability are part of ASK-EHS software philosophy as it enables organizations to pick and choose the modules most beneficial for their EHS operations. Press-metal can now –

*   Track, monitor and record incident data with CAPA capabilities via dashboards
*   Maintain role-wise data visibility and confidentiality
*   Achieve real-time notifications and escalation alerts

On digitizing their permit process, the stakeholders of the permit process eliminated their barriers to best practices in-house – such as non-value-added time in sending e-mails and notifications, physical approach for permit approvals etc. Data traceability was their biggest concern and ASK-EHS digital permit to work solved this by making the correct information visible to the industry personnel.

A simple to use, intuitive digital permit to work platform addressed their permit concerns using their existing permit workflows – ASK-EHS allowed a seamless transition to a system that was comprehensive and unified.

All the modules were delivered to the UAT training platform in September 2019 – post which ASK-EHS trained them for the software both online and onsite. After the success of UAT, the software is currently in use by the Press metal executives since January 2020. Overall, a good mutual coordination between both led to a software delivery that helped them keep safety vigilance.

Press metal is currently using the enterprise version of both the softwares – and is rolled out in all their plants of Malaysia. The company has somewhat decreased their vulnerability to risk by building a high degree of resilience –permit systems and EHS software are capabilities that can assist them in responding when risks are realized.

Compliance complacency is mitigated to some extent via these efforts – safety analytics act as important systematic approaches while evaluating safety threats within.

"The EHS management software allows us to identify trends at individual sites and across multiple locations, enabling our safety personnel to implement global corrective and preventive actions. e-PTW has significantly reduced redundant time spent on sites for approvals and enabled data traceability as and when needed."