

Elevating Process Safety Leadership and Culture

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Abstract

The journey of Process Safety in PETRONAS started in the year 2000 and Process Safety Management has been gradually expanding and continually improving in the organization over the years. Moving forward, from 2020 onwards, focus and emphasis was given on the improvement of Process Safety Performance throughout the organization and the aspiration for Process Safety is towards achieving Zero Process Safety Event.

To achieve Zero Process Safety Event aspiration, Process Safety Focused Enhancement (PSFE) initiative was established in 2020. PSFE is a 3-point strategy which focusses on specific key areas which are anticipated to elevate Process Safety excellence throughout the organization. The 3-point strategy includes: -

- Leadership & Accountability – focuses on mindset and behaviours towards Process Safety priority and culture.
- Risk Visibility & Timely escalation – focuses on enabling greater risk visibility, continuous analytics and timely escalation of Process Safety risk for prompt decision & mitigation
- System Enhancement – focuses on enhancing Process Safety Management governance and driving capability development through interlinkages of multi-disciplinary system.

This paper focuses on the Leadership and Accountability strategy towards elevating Process Safety Leadership and Culture. This key strategy focuses on instilling the right mindset and behaviours through clear and pervasive tone on Process Safety priority and accountability. To achieve this, two specific initiatives was established, which includes: -

- Process Safety Essentials – set of examples of cultural beliefs behaviours in the lens of process safety towards Generative Culture.
- Managements' Process Safety Key Performance Indicator (KPI) – enhancement of managements' Process Safety KPIs towards building ownership, responsibility and accountability to drive Process Safety performance excellence.

The implementation and operationalization of these initiatives are carried out through CARE Conversation, which is an engagement session designed to promote open conversation about Process Safety challenges and risks.

The main intent of CARE Conversation is to facilitate learning from incident i.e., having an open discussion and learning from incident. The key elements of learning from incident are as summarized below: -

- Incident sharing and discussion – sharing of a real incident.
- Learning – observation, insights and conclusion from the sharing.
- Action – translating learning into do-able actions at own workplace.

The expectation from incident sharing is for people to learn and reflect with respect to their own workplace and subsequently, making a personnel commitment towards the behaviours that they want to change, thus preventing similar incidents from occurring at their workplace. This is anticipated to inculcate and promotes the culture whereby the organization continuous learn, reflect and adapts with respect to Process Safety.

1.0 Introduction

Process Safety journey in PETRONAS started in the year 2000, when Process Safety Management (PSM) department was initially established at a refinery within the organization. Process Safety has been gradually expanding and continually improving in the organization over the years. Among the important milestones of Process Safety within the organization are as highlighted in

Figure 1.

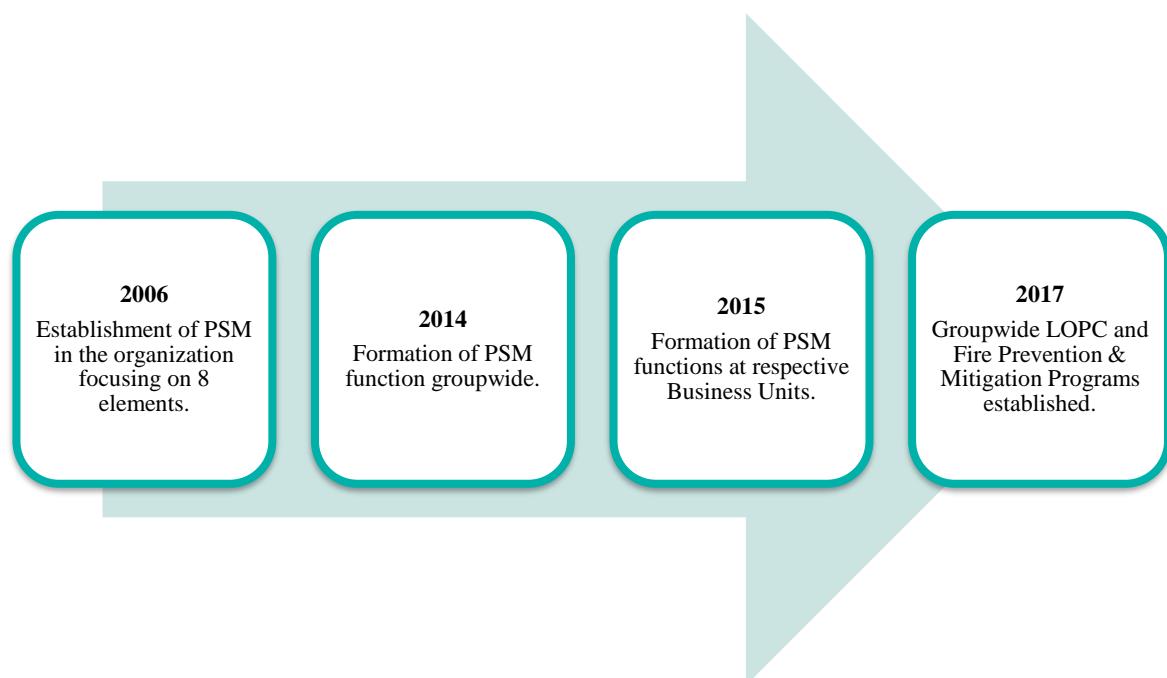


Figure 1: Major Milestones of Process Safety Management (PSM) within the Organization

The improvement in Process Safety over the years can be reflected through the reduction in the occurrence of Major Process Safety Events (PSE) / incidents. Incident statistics from 2015 to 2020 indicates a downward trend with respect to number of Major PSE / incidents occurrence across the organization, as shown in Figure 2.



Figure 2: Major Process Safety Events occurrence from 2015 - 2020

However, the organization realizes that all it takes is just a single incident which can have a catastrophic consequences or impact to the company's operation, personnel as well as reputation. In acknowledgement of this, focus and emphasis was given by the organization's top management on the importance of Process Safety. The sentiment of top management on the significance of Process Safety was highlighted by the company's President during a conversation session as quoted below: -

"The organization needs to view that risk-taking and accountability comes hand-in hand. However, embracing this philosophy would also mean we need to do this with laser focus on process safety."

Moving forward, from 2020 onwards, the organization's aspiration for Process Safety is towards achieving ZERO Process Safety Events.

2.0 Process Safety Focused Enhancement (PSFE)

To achieve the organization's ZERO Process Safety aspiration, we realize that we need to create a new experience that can facilitate the transformational shift in Process Safety culture across the organization, as shown in Figure 3 below.

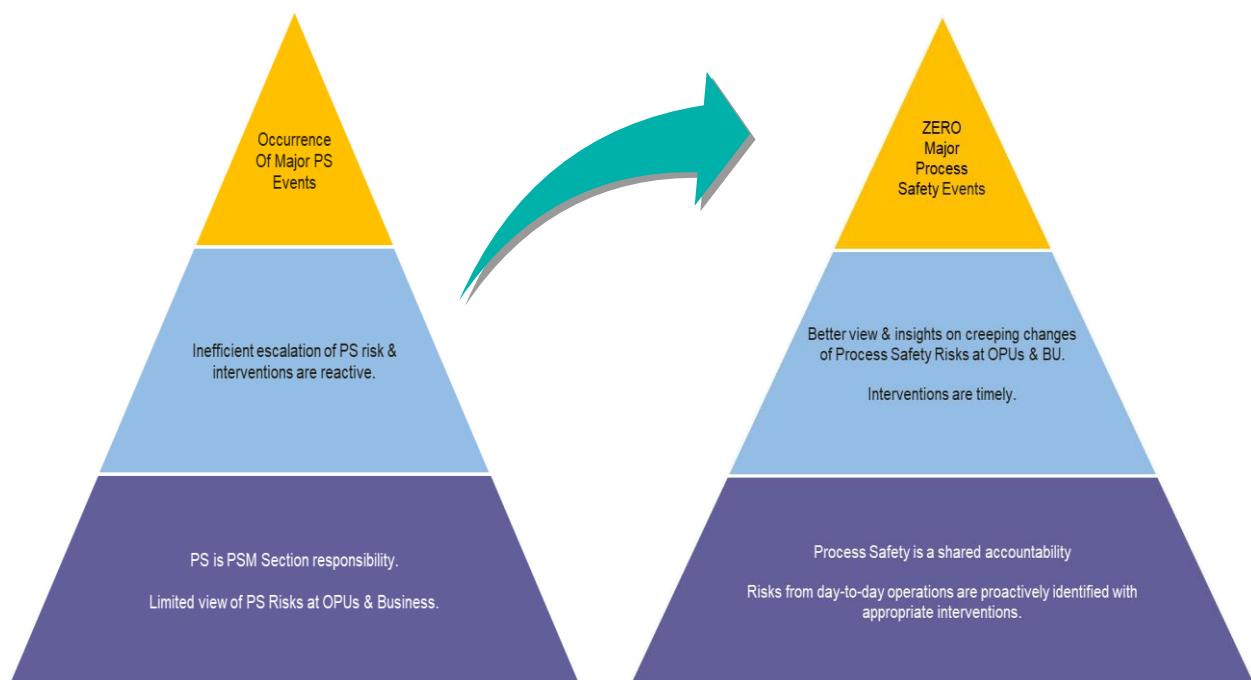


Figure 3: Transformational shift in Process Safety Culture

As an organization, we want to move away from certain perceived notions or mindset such as Process Safety being the responsibility of a certain section or department as well as the short-sightedness in viewing Process Safety risk and interventions. Our goal is to create a holistic approach or mindset whereby everyone takes accountability of Process Safety which in turn gives a better view of Process Safety risk and interventions.

Therefore, in 2020, **Process Safety Focused Enhancement (PSFE)** initiative was established towards achieving the organization's Zero Process Safety Event Aspiration.

2.1 Process Safety Focused Enhancement (PSFE)

Process Safety Focused Enhancement (PSFE) is a three (3) point strategy which is envisioned to focus on specific key areas that is anticipated to elevate Process Safety excellence throughout the organization. The three (3) point strategy is presented in Figure 4 below:



PSM Leadership & Accountability

- Inculcate right mindset and behaviours through clear and pervasive tone on Process Safety priority and accountability.



PSM Risk Visibility & Timely Escalation

- Enable greater visibility, continuous analytics and timely escalation of Process Safety risks for prompt decision and mitigation.



PSM System Enhancement

- Holistically drive & govern Process Safety Management beyond Process Safety 8-Aspects and through interlinkages of multi-disciplinary system

Figure 4: Process Safety Focused Enhancement (PSFE)

This paper will be focusing on Process Safety Management (PSM) Leadership and Accountability strategy which will be discussed in detail in the next section.

3.0 Leadership and Accountability

The focus of this key strategy is to instil the right mindset and behaviours towards enhancing Process Safety culture towards promoting Process Safety priority & accountability. To achieve this objective, two (2) specific initiatives were established i.e., Process Safety Essentials and Integrated Managements Process Safety Key Performance Indicators (KPIs).

3.1 Process Safety Essentials

Process Safety Essentials, as shown in Figure 5, are examples of PETRONAS Cultural belief behaviours that can enhance Process Safety culture towards Generative Culture. Process Safety Essentials comprises of four (4) cultural belief behaviours, which we want to instil towards improving Process Safety culture throughout the organization.

The four (4) cultural belief behaviours adopted as part of Process Safety Essentials are: -

- I Own Process Safety – this belief focusses on ownership, whereby everyone shall be accountable and responsible for their actions towards Process Safety.
- I Embrace the Red and Challenge the Green - this belief focuses on embracing non-conformance, thus understanding issues related to Process Safety and providing required support towards overcoming it; and challenging the norms, through thorough verification before acceptance.
- I Make Conscious Risk Based Decisions – this belief focuses on promoting risk-based mindset in managing day-to-day operations.
- I Prioritize Resources and Respond Timely to Process Safety Matters – this belief focuses in providing sufficient and capable resources for timely intervention of Process Safety matters.



Figure 5: Process Safety Essential

3.2 Integrated Process Safety Key Performance Indicators (KPIs)

This initiative is tailored towards enhancing Managements Process Safety KPIs towards building ownership, responsibility and accountability towards Process Safety performance excellence, whereby selected Tier 3 and Tier 4 performance indicators which hold the key towards avoiding Tier 1 and Tier 2 performance indicators are embedded as Plant / Facility Leadership team's KPI, as shown in Figure 6.

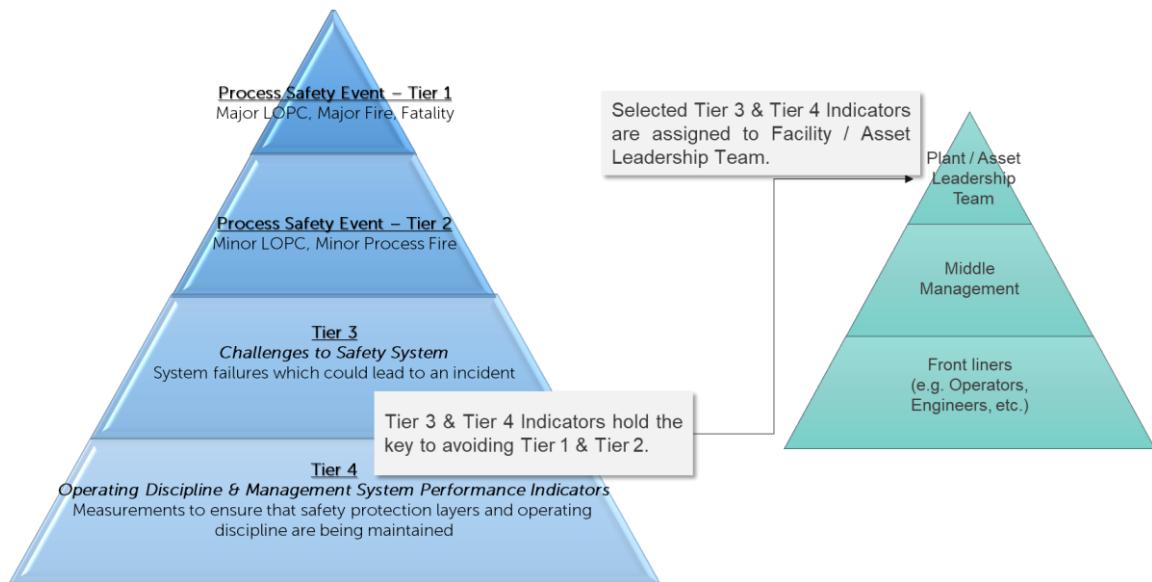


Figure 6: Integrated Managements Process Safety KPIs

4.0 CARE Conversation

To drive the specific initiatives towards nurturing and elevating the maturity of Process Safety culture, CARE Conversation was established. CARE Conversation is an engagement session that promotes open conversation with regards to Process

Safety and issues related to Process Safety. It is also an avenue to promote and cascade Process Safety Essentials, however the main agenda of CARE Conversation session is learning from incident. Learning from incident process can be widely categorized into three (3) section i.e., incident sharing and discussion, learning and action, as shown in Figure 7.

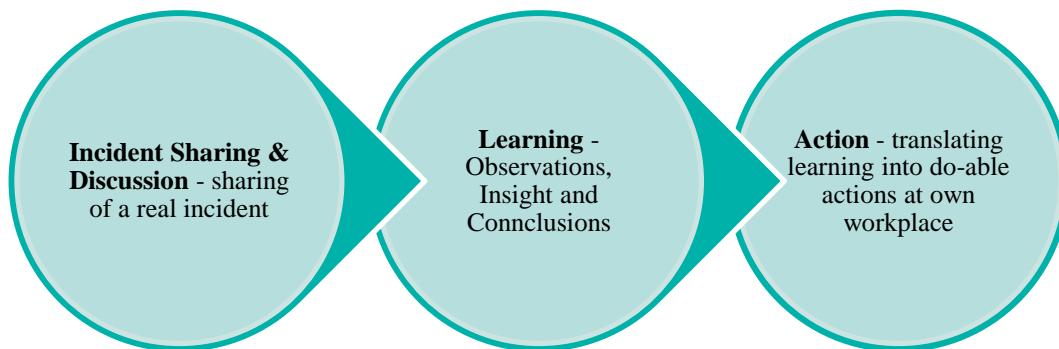


Figure 7: Learning from Incident

Incident sharing and discussion focusses on re-telling the story of a selected incident, as it happened, without dwelling on the root causes or findings from incident investigation. Learning process is where the participants observe what had happened and have their own insights on what should have happened and thus, realizing what could have been done differently. Action process is where participants adapt and implement lesson learnt from incident in their day-to-day business, thus preventing recurrence of similar incident.

The main aim of learning from incident is for participants to learn from an incident and reflect with respect to their own working environment and make a personnel commitment towards the behaviours that they want to change. CARE Conversation is conducted for plant / facility Leadership Team with expectation that the respective Leadership Team will in turn conduct CARE Conversation for their middle management and frontliners, therefore promoting an open conversation between management team and their downlines. Our expectation through CARE Conversation, is to inculcate the culture whereby the organization continuously learn, reflect and adapt with respect to Process Safety.

5.0 Conclusion

While the efforts in driving Process Safety in the organization have shown good improvement, the focus of Process Safety Focused Enhancement (PSFE) is a good model for people to learn, to refresh the focus in driving towards ZERO Process Safety Event aspiration. Process Safety Focused Enhancement (PSFE) that prioritize Leadership & Accountability as the first pillar captures well the need for the leaders to set the tone for respective assets to comply to Process Safety requirement and drive excellence at site. This approach has positive impact to organization and set us on the right direction toward ZERO Process Safety Event aspiration.