



Process Safety Site Visit to Improve PSM Culture

Tupras Izmit Refinery-
KOCAELI/TURKEY

Contents of Presentation



What is Culture?
Why it is Important?

Why is PSM Culture
Important?

Safety Culture in
Tupras

Process Safety Site
Visits

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Italy



Turkey



France



Japan



England



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Safe Design

HAZOP

BPCS

ESD

Alarm

Mechanical Integrity

...



Human
Factor ?

- Safety Competitions
- Safety Bulletins
- Site Safety Tours (HSE based)
- Audits (Legal, third party, insurance, etc.)
- Weekly Learning from Incidents Safety Talks
- Toolbox Talks with Contractors
- Safety Trainings
- Emergency Drills
- **Process Safety Site Visits**

NEW



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Scope



Application

Participants



Frequency



Duration



Approach to
employees



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Table 1: Example of Annual Site Visit Calendar

	Unit A	Unit B	Unit C	Unit D	Unit E	Unit F
Jan	Visitor 1					
Feb		Visitor 1				
Mar				Visitor 2		
Apr					Visitor 3	
May			Visitor 3			
Jun						Visitor 2
Jul	Visitor 3					
Agu		Visitor 2				
Sep				Visitor 1		
Oct					Visitor 2	
Nov			Visitor 1			
Dev						Visitor 3

Application

Participants



Frequency



Duration



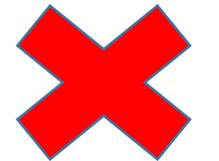
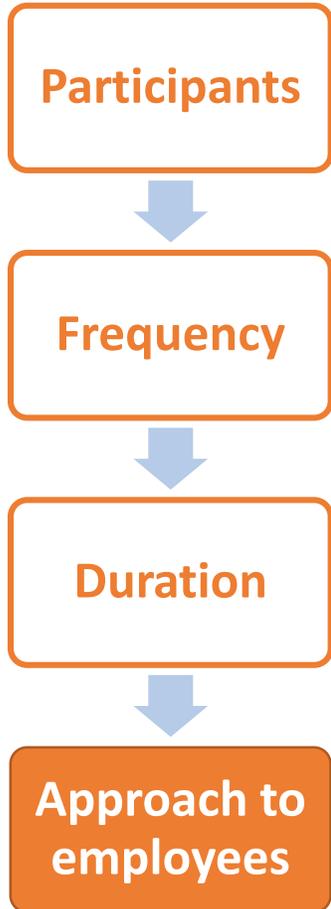
Approach to
employees

Table 2: Example of Site Visit To-Do Calendar

	1 st Day	2 nd Day
09:00-10:00	Meeting and Info about Visit	Work Permit
10:00-11:00	Process Safety Information System	Operational and High-Risk Operational Procedures
11:00-12:00	Process Hazard Analysis	Emergency Response
12:00-13:00	Lunch Break	
13:00-14:00	Management of Change and Pre Start Up Safety Review	Chemicals
14:00-15:00	Incident Investigation and Reporting	Mechanical Integrity and Assurance of Quality
15:00-16:00	Shift Change	Closure (Agreeing on Findings and Creating an Action Plan)

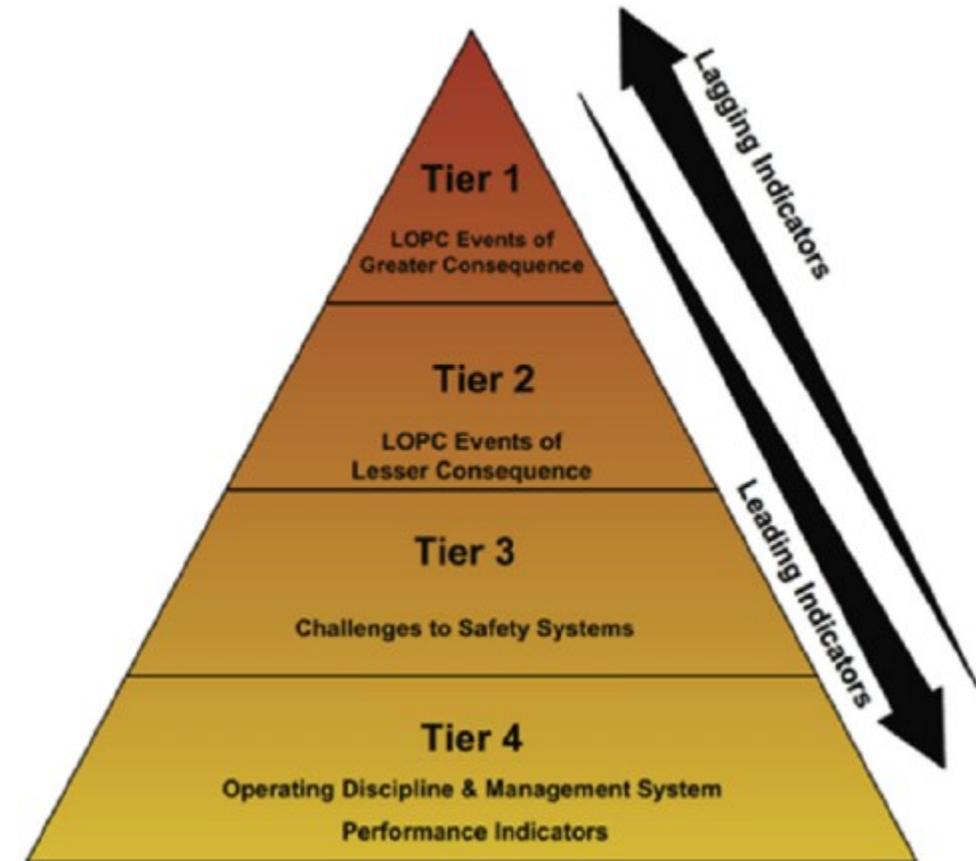


Application



Findings

- Important findings are revealed. These findings are mostly Tier 3 and 4 (PSE) process safety events.
- After starting the visits, there is an increase in the number of Tier 3 and 4 PSE notifications reported by the employees.



Tracking of actions and eliminate hazards in the sites

- Action tracking system
- Reminder by e-mail
- Informing the manager about the latest status automaticly
- All details of the action (when and how it is closed or why it is not closed)



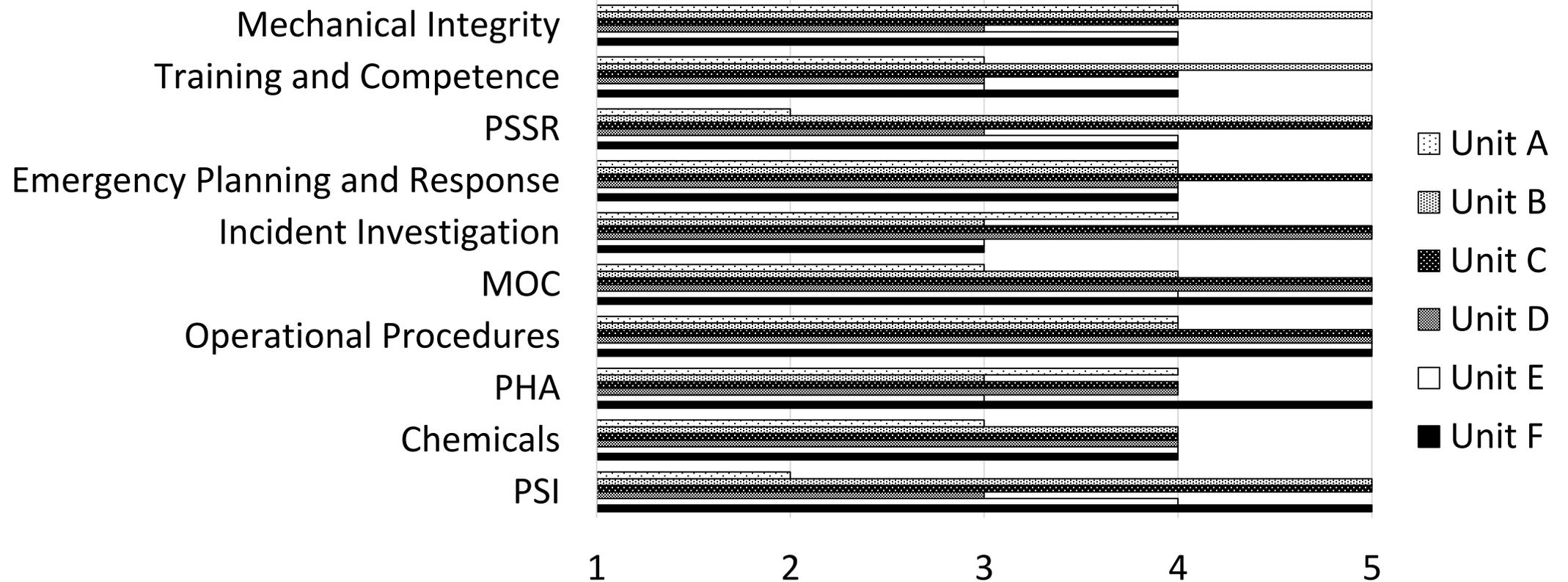
Comparison with other units and progress tracking

Results	Meaning of Scores
Excellent	4-5 : Good practice and awareness above standards
Very Good	3-4 : Standard well known, awareness high
Good	2-3 : Standard is applied, awareness is poor
Standard	1-2: Standards are known but no awareness
Poor	0-1 : Standards unknown



Comparison with other units and progress tracking

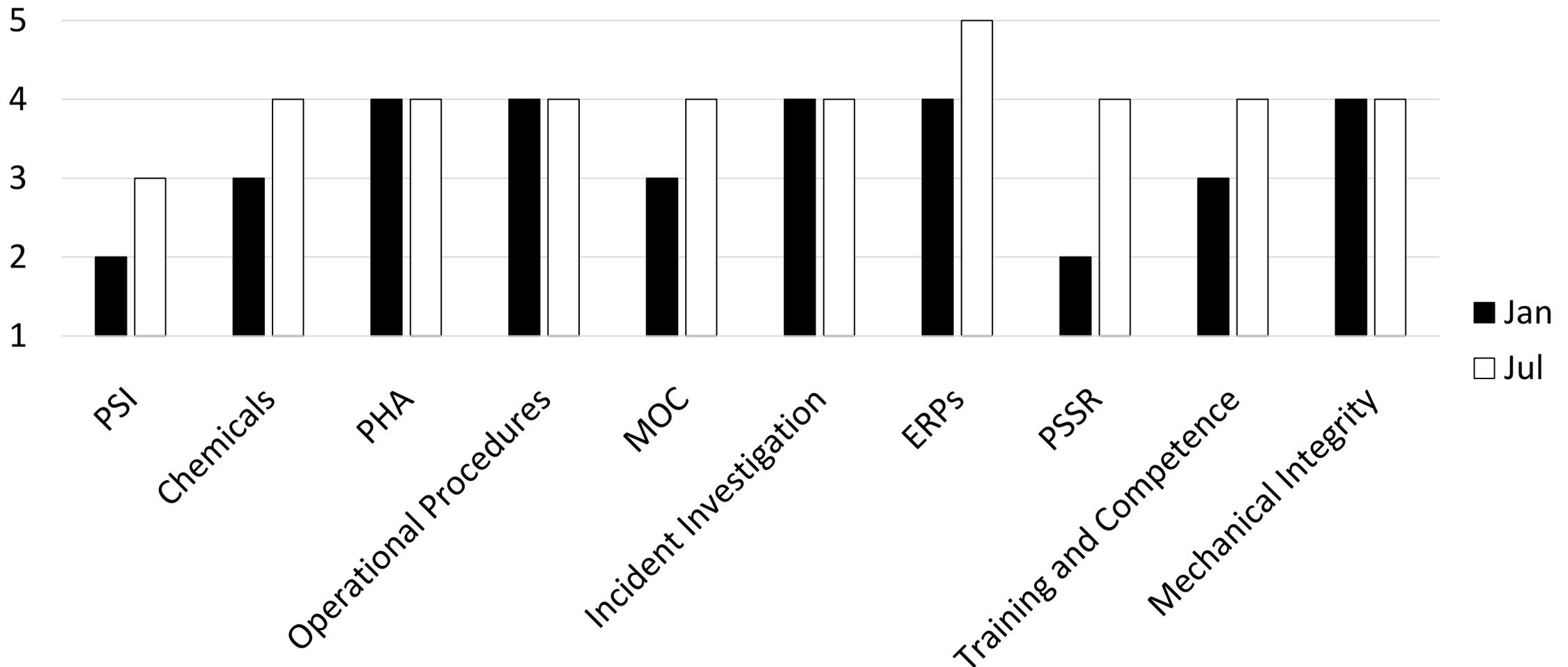
Distribution of Findings By Different Units





Comparison with other units and progress tracking

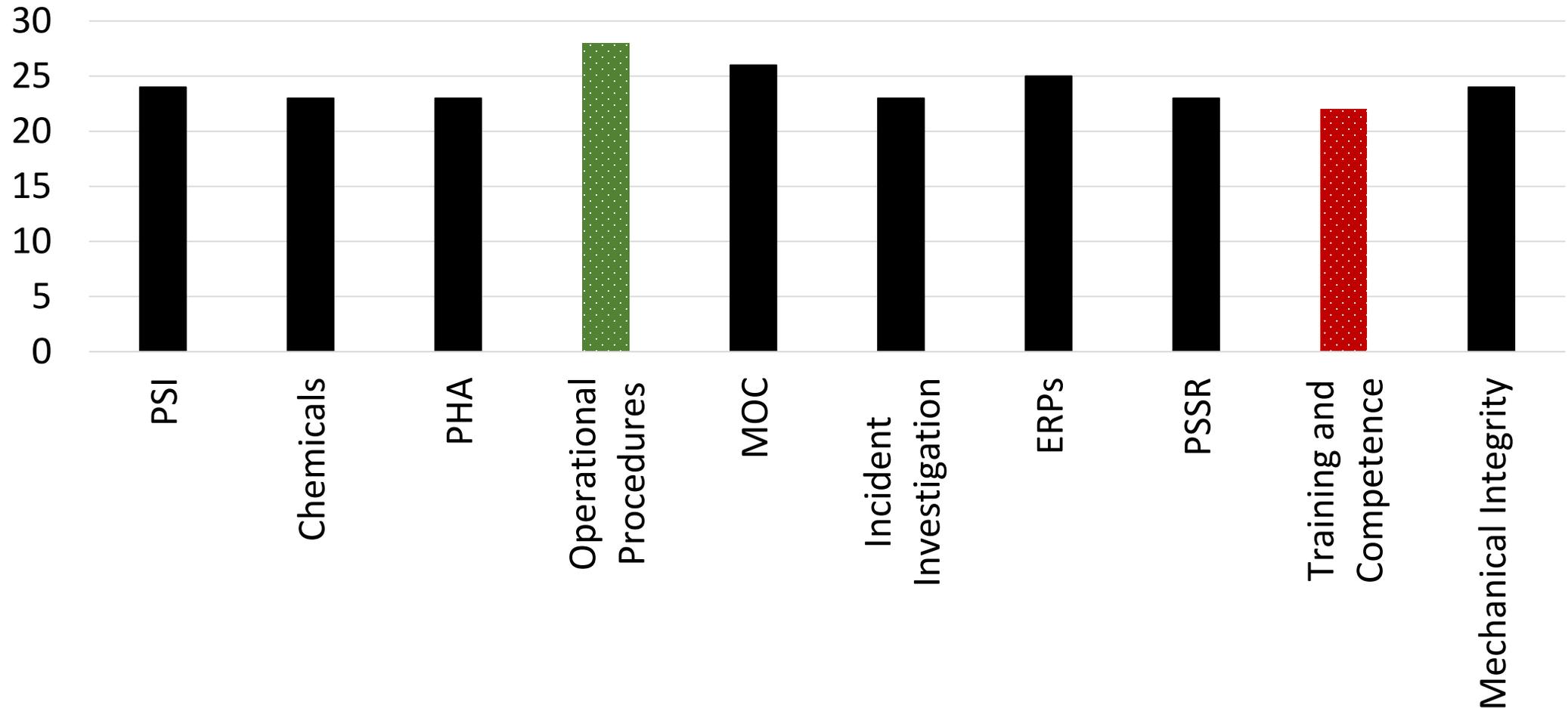
Change and development in the unit between two visits





Comparison with other units and progress tracking

Best and Weakest PSM Elements of the Year



- Visible leadership and keep in contact with employees
 - Role model
 - Win-win system
 - Employee participation
 - Motivation
- Improve knowledge and skill level of the employees about the PSM
- Be ready for other audits all the time



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Challenges

Defensive mode

Afraid of
manager

Experienced
workers

Workload

Solutions

Support of
Management

Participation of
manager

Mutual transfer
of experience

Suitable
schedules

Conclusion



References

1. U.S. Dept. of Labor, Occupational Safety and Health Administration. (1992). Process safety management.
2. DuPont Sustainable Solutions. Elements of a Process Safety Management System <https://www.dsslearning.com/process-safety-management-system>
3. American Petroleum Institute. (2017). Process safety performance indicators for the refining and petrochemical industries.

About Us



İPEK İŞTEBEN

Education

- Middle East Technical University Chemical Engineering (2012-2017)

Experience

- Operations Engineer- Tupras Izmit Refinery (2017-2019)
- Process Safety Engineer- Tupras Izmit Refinery (2019-2021)
- Process Safety Supervisor- Tupras Izmit Refinery (2021- ~)

Certification

- Nebosh HSE Certification in PSM

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SEÇKİN GÖKÇE

Education

- Hacettepe University Chemical Engineering (2008-2013)

Experience

- Process Safety Engineer- Tupras Izmit Refinery (2013-2016)
- Process Safety Supervisor- Tupras Izmit Refinery (2016-2019)
- Process Safety Superintendent- Tupras Izmit Refinery (2019-~)

Certification

- C Class HSE Specialist
- Nebosh HSE Certification in PSM
- Advanced HAZOP training

Contact

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 **Tüpraş**

Thank you!

 **Koç**