

# **Behavior Based Safety BPS 2323**

# **Choosing The Right Approach**

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## **Chapter Description**

At the end of this chapter, student should be able to:

- Explain the overview of safety improvement approaches in workplace

#### **Expected Outcomes**

Students able to explain:

- The effective approaches in safety
- Why the approaches are effective?

#### References

- 1. Geller, E. Scott (2001). "Working Safe, 2<sup>nd</sup> ed". Lewis Publishers.
- 2. Geller, E. Scoot (2005). Behavior-Based Safety and Occupational Risk Management. *Behavior Modification*. 29(3):539-561.
- 3. Guastello, S.J. (1993). Do we really know how well our occupational accident prevention programs work? Safety Science, 16. 445.
- 4. Krause, T.R., Hidley, J.H., & Hodson S.J. (1991). Measuring safety performance: The process approach.
- 5. Malgorzata Jasiulewicz-Kaczmarek, Katarzyna Szwedzka and Marek Szczuka (2015). Behavior based intervention for occupational safety- case study. Procedia Manufacturing 3:4876-4883.
- 5. Peterson, D. (1997). Behavior based safety system: A definition and criteria to assess. Professional Safety, 42 (1): 30-32.



#### Content

- ☐ Introduction
- Approaches of Safety Program
- ☐ Element of Effective Approaches
- ☐ Success Stories of BBS Approaches
- ☐ Conclusion



### Introduction

- ☐ Main goal of BBS is accident- rate reduction.
- ☐ Choosing the right approach to safety improvement

is important.

## Approaches to Reduce Workplace Injuries

(ranked according to their effectiveness)



Source: Guastello (1993)



# Effective Approaches: Consider human elements

Human behavior is the target

Relies on interpersonal observation

Feedback for improvement

#### **Human Elements**

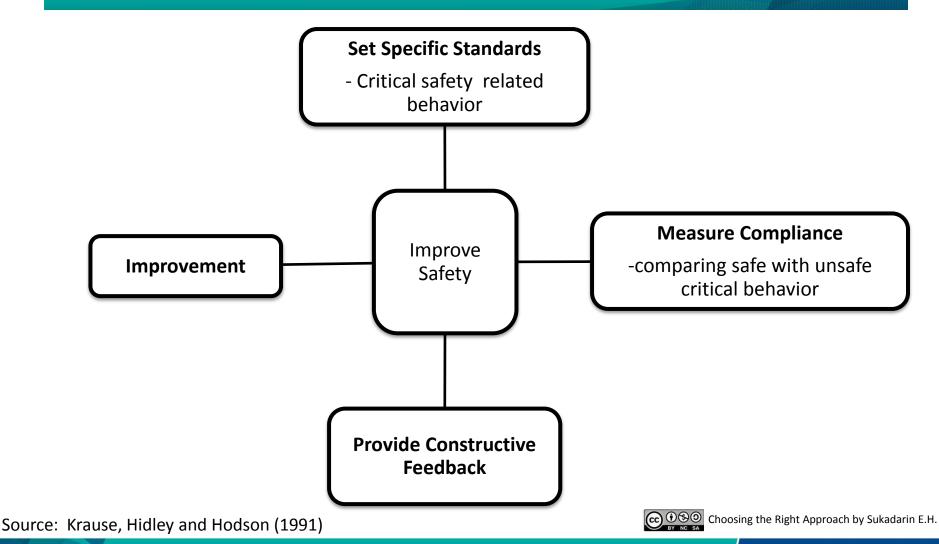
- ☐ Human behavior is motivated by its consequences
- ☐ Personal feeling such as self-esteem, empowerment
  - and belonging are important for safety achievement
- ☐ Attitude of frustration or an internal state of distress
  - are the example of source unsafe behavior.

# Traditional Method to Measure Safety Performance



Incident rates are false
benchmarks for
organization as insurance
company used them to set
rates (Peterson 1997)

# The Best Way to Measure Safety Performance





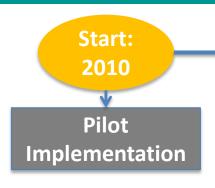
2008 2011 70% of accident at work are because of dangerous of workers' behavior Head of various Consultant 2: Department **University - Technical** Managers Consultant 1: Leaders University - Scientific Zero **Accidents Programs** Increase **Improve** Employee's attitude organizational communication change culture (safety)

Source: Malgorzata Jasiulewicz-Kaczmarek et al (2015)



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**Long Term Program: Observation and Behavioral Audits**  2014

1st Review

2600 workers involved (directly and indirectly)

10 % of them are **observers** 

**Trained!** 

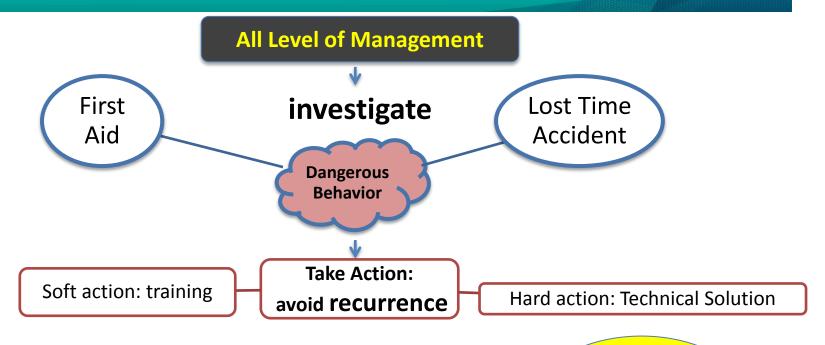
Year **2008** – 98 accidents

Year **2013** – 9 accidents

Source: Malgorzata Jasiulewicz-Kaczmarek et al (2015)







✓ Increase safety culture

**RESULT:** 

- ✓ Increase compliance to safety rule
- ✓ More than a year without accident

**Ability to** observe and react to dangerous behavior

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Source: Malgorzata Jasiulewicz-Kaczmarek et al (2015)



**BBS** Program Training for executive

Identify and train observer (23 people)

Develop database to record observation



#### **RESULT:**

Result of observations - discusses in daily morning meeting

Top management spent a lot of money for safety purpose

Source: Malgorzata Jasiulewicz-Kaczmarek et al (2015)



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### Conclusion

Cost effective: Target behavior through behavior management intervention

Small change in behavior: result attitude change

Behavior feeding attitude-attitude feeding behavior – behavior feeding attitude and so on...



A'isha (ra) said that Rasulullah (saw) said: "The deeds most loved by Allah (swt) (are those) done regularly, even if they are small".

.Bukhari and Muslim.



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