



Performance Measurement for improving Workplace Safety to world class

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CONTENT



- Introduction to the organization.
- Why Safety??
- Safety management system
- Demands of the leadership
- Safety performance measurement
- Leading indicators model at EAPCL.



THE COMPANY

Manufactures and sells PVC resin

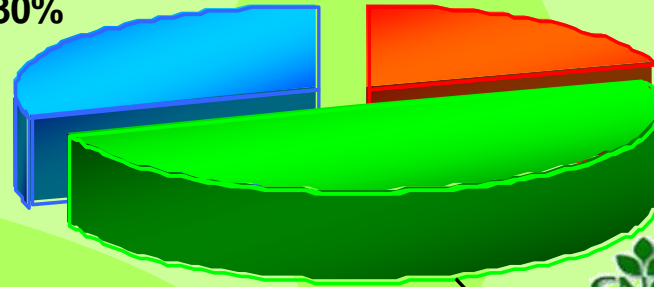


30%



Mitsubishi Corporation

20%



50%



Established	: October 20, 1997
Plant location	: Bin Qasim
Plant Area	: 30 Acres
Production date	: November 14, 1999
Capacity	: 100,000 tons/year



ACCREDITATIONS & RECOGNITIONS

- ISO-14001 since 2001.
- ISO-9002 since 2000.
- Investor's In People (IIP) recognized in 2005
First Company in the region.
- Won the Export Trophy twice.
- Won the best Environmental performance Award-2004 announced by NFEH.





ASSETS

- PVC & Utilities units
- Bagging & Shipment lines
- Chemical and general ware houses.
- Product warehouses in Karachi & Lhr.
- Main office – Bahria Complex.
- Regional offices in Lahore & Quetta.

AND

Our most valuable assets:
Our employees





TYPICAL HAZARDS

Petrochemical plants are not safe for common people.

- Explosive vapors:
 - Vinyl Chloride Monomer (VCM).
 - Natural gas.
 - Acid, caustic, Organic peroxides etc..
 - Pressures, temperatures, heights.
 - High Voltage power generation & distribution.
- &

Humans – prone to make mistakes and at times create un-safe situations.



WHY SAFETY??

- Take care of the most valuable asset - Employees.
- Protect property and community.
- Forms basis for business continuity.





COMMITTMENT

Management Commitment to the process is the single most important factor in determining the success of any program. It's the commitment which will take an organization to better levels of safety performance through leadership.

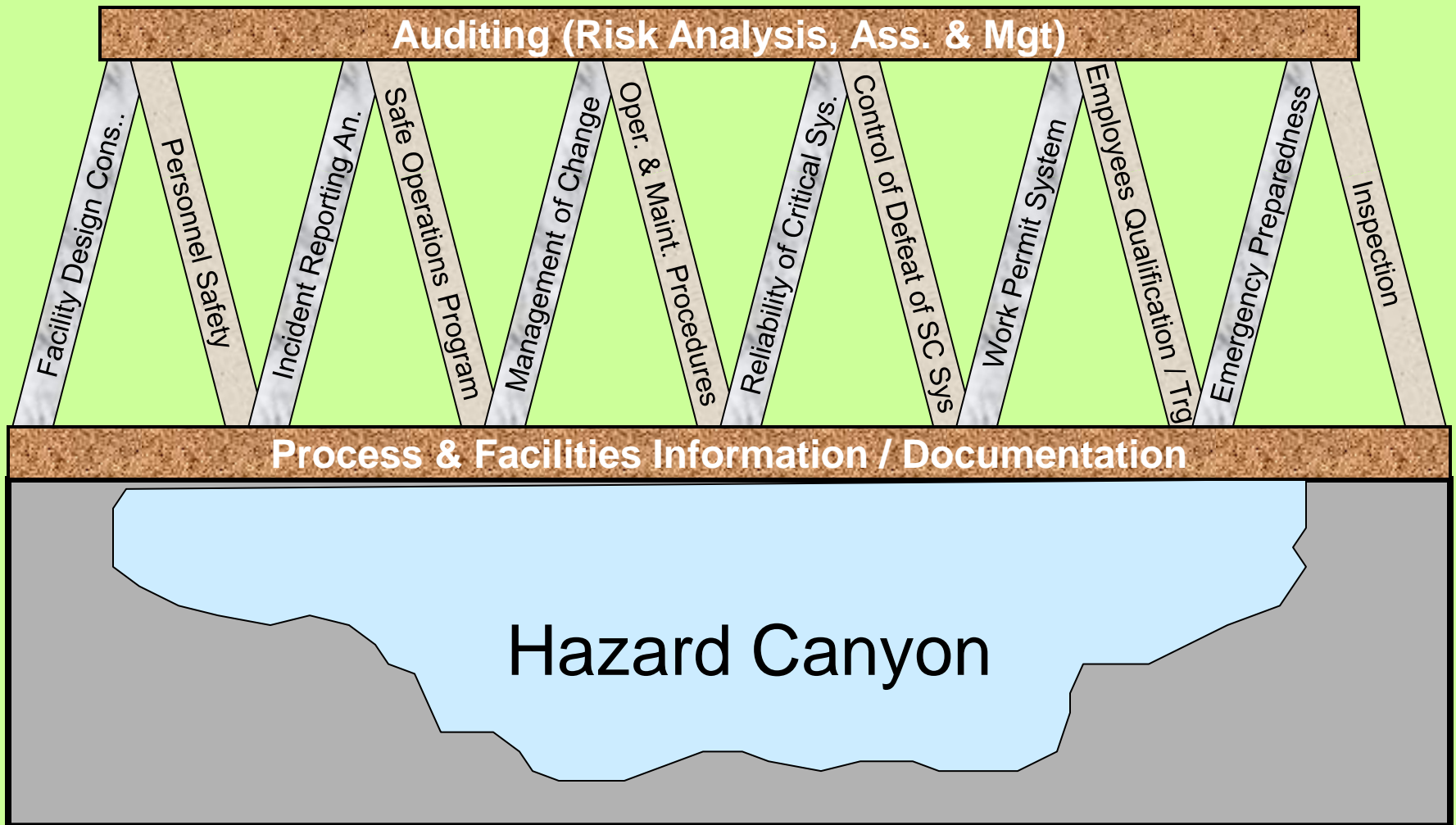


SAFETY PRINCIPLES

- All injuries are preventable.
- Training to work safely is essential
- Managers are responsible to prevent injuries
- Employee Involvement is necessary.
- Working safely is a condition of employment
- All operational exposures can be eliminated.
- Prevention of incidents is good business



EAPCL PSM MODEL





SAFETY ORGANIZATION

**Policies,
Philosophies**

**Manufacturing Safety
Management system**

Safe Operations Committee

**Services Safety
Committee**

**Incident Reports
Review Comm.**

**Dept. Level
Committees**

SUB Committees

- Process
- Mechanical
- I&E
- I.H.

**Grass root level
Committees**



SAFETY LEADERSHIP DEMANDS

- Investing time discussing safety concerns.
- Giving Frequent feedback to workers.
- Gaining buy-out on decisions.
- Stewarding and Benchmarking.
- Management by Objectives (MBO).
- Rewarding and Recognizing.





WHY PERFORMANCE MEASUREMENT?

- Measures effectiveness of the systems.
- Assists in business / objectives planning.
- Provides opportunity to “re-calibrate”.
- Gives opportunity for feedback.
- Prevents Injuries.



HOW TO MEASURE PERFORMANCE?

- Traditional: Lost time injury, Frequency rates, & % budget to remedy hazard.
- Transitional: Injury Trend analysis and savings achieved through prevention

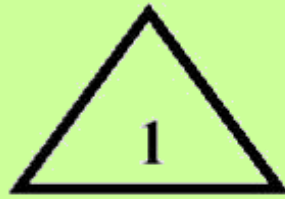
These are **lagging Indicators.**

- Lagging Indicators would not tell the whole story.
- They do not restrict injury rates.
- **Leading Indicators are Essential.**



LEADING INDICATORS

- Define safety rules for the site
- Make sure people understand them.
- Define responsibilities clearly.
- Empower and make line management responsible.
- Develop “Leadership Training” for management.
- Develop criteria that evaluates conditions.
- Benchmark and steward performances regularly.
- Streamline processes &
- Continuously Improve them...



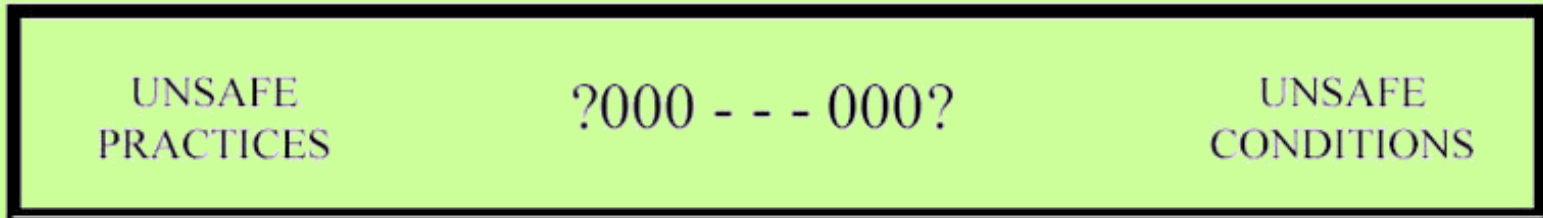
Major Injury



Minor Injuries



The ratios - 1-29-300- show that in a unit group of 330 similar accidents occurring to the same person, 300 will result in no injury, 29 will produce minor injuries, and 1 will cause a serious injury.



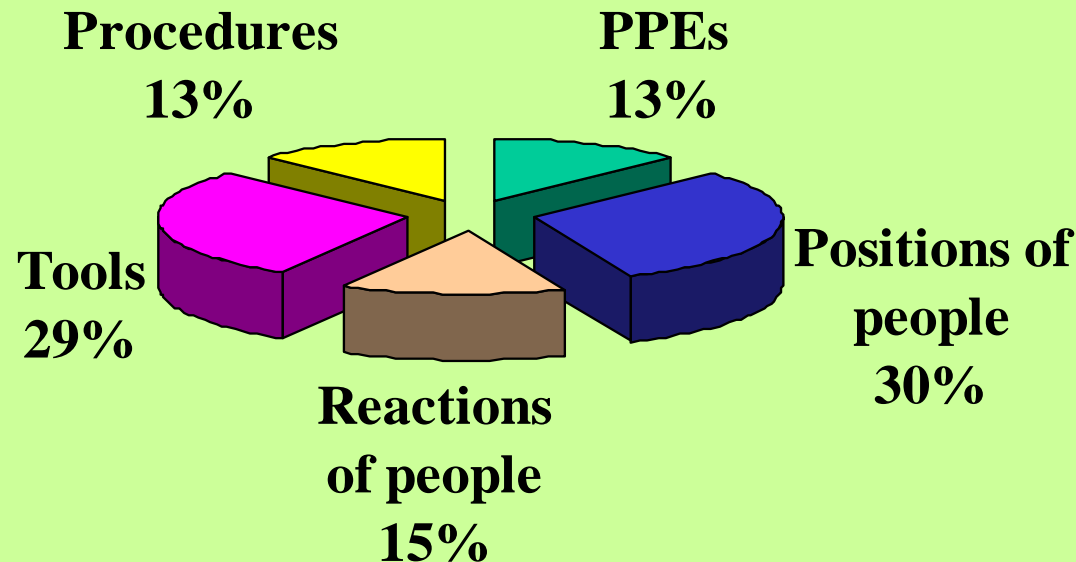
00.3 per cent of all accidents produce major injuries
08.8 per cent of all accidents produce minor injuries
90.9 per cent of all accidents produce no injuries



WHY INJURIES OCCUR???

88%-96% of all injuries are caused by unsafe acts – Dupont international study.

Causes of Lost Workday and Restricted Workday Injuries:
Results of a 10-year DuPont Study shows following break up of reasons:





MANAGEMENT SAFETY AUDITS

*Our behaviors set us to some level of safety:
So keep a watch on it.*

- Systematic inspections of the workplace.
- Employees observe Employees.
- Establish contacts.
- Share Observations with a view to improve, not to fix blames.
- Gain acceptance on in-compliances.
- Entrust for compliance in future



MANAGEMENT SAFETY AUDITS

BENEFITS??

- Prevent injuries and property loss
- Reinforce positive safety behaviors
- Raise safety awareness
- Establish standard & tests understanding.
- Ensure compliance with standards.
- Identify weaknesses in safety system
- Identify and correct unsafe situation
- Motive people



SAFETY PERFORMANCE

- Improvement will come in if right set of parameters are chosen and
- They are made Measurable.

**THINGS THAT GET MEASURED,
GET IMPROVED.**



SOME EXAMPLES

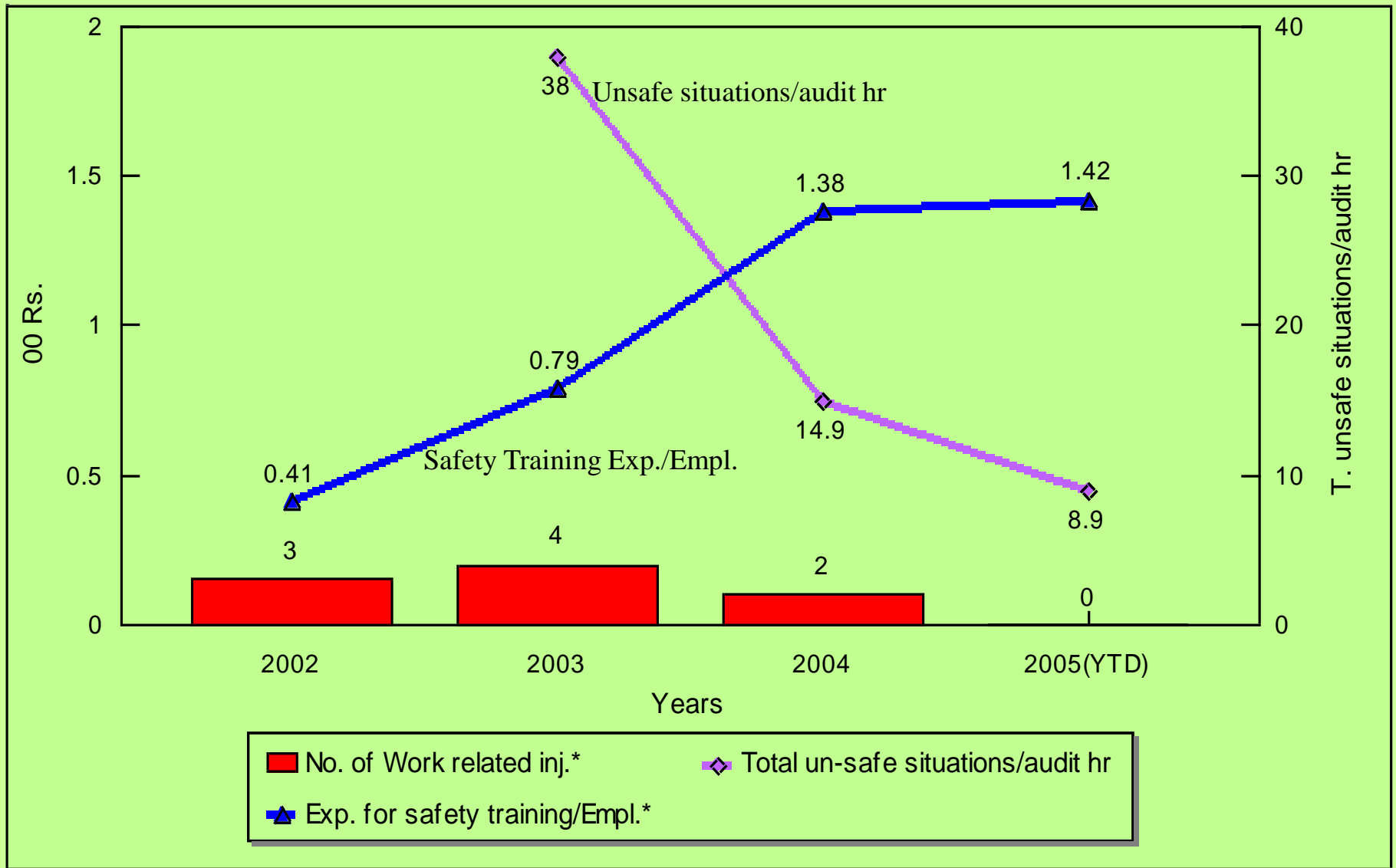
Parameters	Weightage	Scores
Management Safety Audit Compl.	10%	
Observations/audit hr	10%	
Serious observation rectification	5%	
Safety meetings compliance	5%	
Effectiveness scores	5%	
Work permit procedure compliance	10%	
Incident Reports quality scores	10%	
Incident Report Recc. Compliance	10%	

Example Continued...

Parameters	Weightage	Scores
Inspection program compliance	5%	
Inspection Recc. compliance	5%	
Pre-Start up Reviews recc. Compliance	5%	
Plant housekeeping	5%	
HAZOP recc. compliance	10%	
Risk Management audit compl.	5%	
Debits (FACs, control of change violations, PSSR violations etc...	-3% for each.	
Totals		YYY%



EAPCL EXPERIENCE



* Includes contractor manpower



WHERE TO GO FROM HERE??

- It is only a “Beginning” not the “End”.
- Continuous Improvement is the only way of survival.

SO

- Keep challenging the status quo and keep improving.

QUESTIONS !!



THANKS