

June 6, 2001

Reducing the Probability of Incidents through Behavior-Based Safety –An Anomaly or Not?

John A. Turek

Stanford Linear Accelerator Center, Stanford University, Stanford, CA 94309

**Abstract**

Reducing the probability of incidents through Behavior-Based Safety—an anomaly or not?

Can a Behavior-Based Safety (BBS) process reduce the probability of an employee sustaining a work-related injury or illness? This presentation describes the actions taken to implement a sustainable BBS process and evaluates its effectiveness. The BBS process at the Stanford Linear Accelerator Center used a pilot population of national laboratory employees to:

- Achieve employee and management support.
- Reduce the probability of employees' sustaining work-related injuries and illnesses.
- Provide support for additional funding to expand within the laboratory.

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# **Reducing the Probability of Incidents through Behavior-Based Safety – An Anomaly or Not?**

AIHCE Crossover Program 507

**John A. Turek**

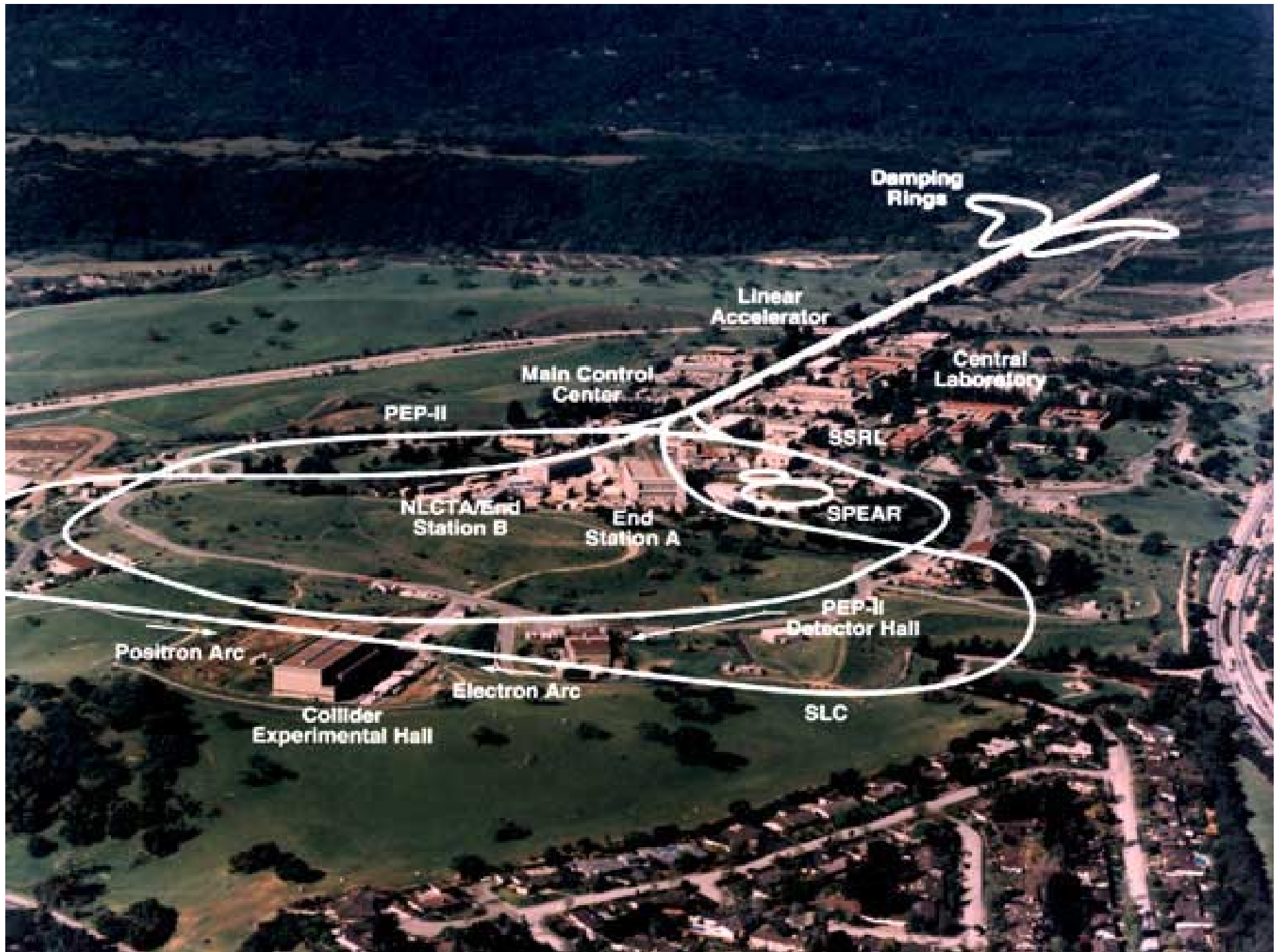
Stanford Linear Accelerator Center (SLAC)

Operated for the U.S. Department of Energy by  
Stanford University



*June 6, 2001*







## Executive Summary

Can a behavior-based safety process reduce the probability of an employee sustaining a work related injury or illness?

- Utilize pilot study of employees.
- Achieve employee, union, and management support.
- Reduce probability of injury and illness.
- Provide support for expansion within the lab.

## Crossover Program Objectives

- A. Describe the actions taken to implement a sustainable behavior-based safety process.
- B. State four steps to gain employee, union and management support for a behavior-based safety process.
- C. Evaluate the effectiveness of this process within your own organization.

## **Objective A:**

**Describe the actions taken to implement a sustainable behavior-based safety process.**

### **Reduce the Probability vs. Incident Reduction**

- We can reduce the probability of an employee sustaining an injury or illness.
- Scenario.



## **Objective A: Groundwork**

- 1998.
- D.O.E. laboratories.
- Publications review.
- Professional development conference.
- Budgetary constraints.
- Pilot sample.

## Objective A: Pilot Study

- Departments with a higher incident rate.
- ESH&CC meeting.
- Three departments chosen.
  - Operational Health Physics, ES&H Division
  - Facilities, Business Services Division
  - Plant Engineering / Maintenance, Technical Division

Note: Site Engineering and Maintenance (SEM) 1/1/00

## **Objective A: Pilot Study - Education**

- Communication meetings.
  - Union, Employees and Supervisors
- Purchase order awarded.
- July 23, 1999 pilot study initiated.

## **Objective A: Union Participation**

- Chief Steward and Union members participated on the Steering Committee and other various activities in the behavior-based safety process.
- Union members received educational training in all elements of a behavior-based safety process.

## **Objective A: Management Participation**

- Supervisors participated on Steering Committee and other various activities in the behavior-based safety process.
- Supervisors received educational training in all elements of the behavior-based safety process.
- Averted scheduling conflicts.
- Addressed budgetary constraints.

## **Objective A: Group Dynamics**

- May wish to use outsider to focus the group.
- Must be willing to devote time in preparation.
- Intergroup dynamics –It is beneficial.

## Objective A: Employee Support

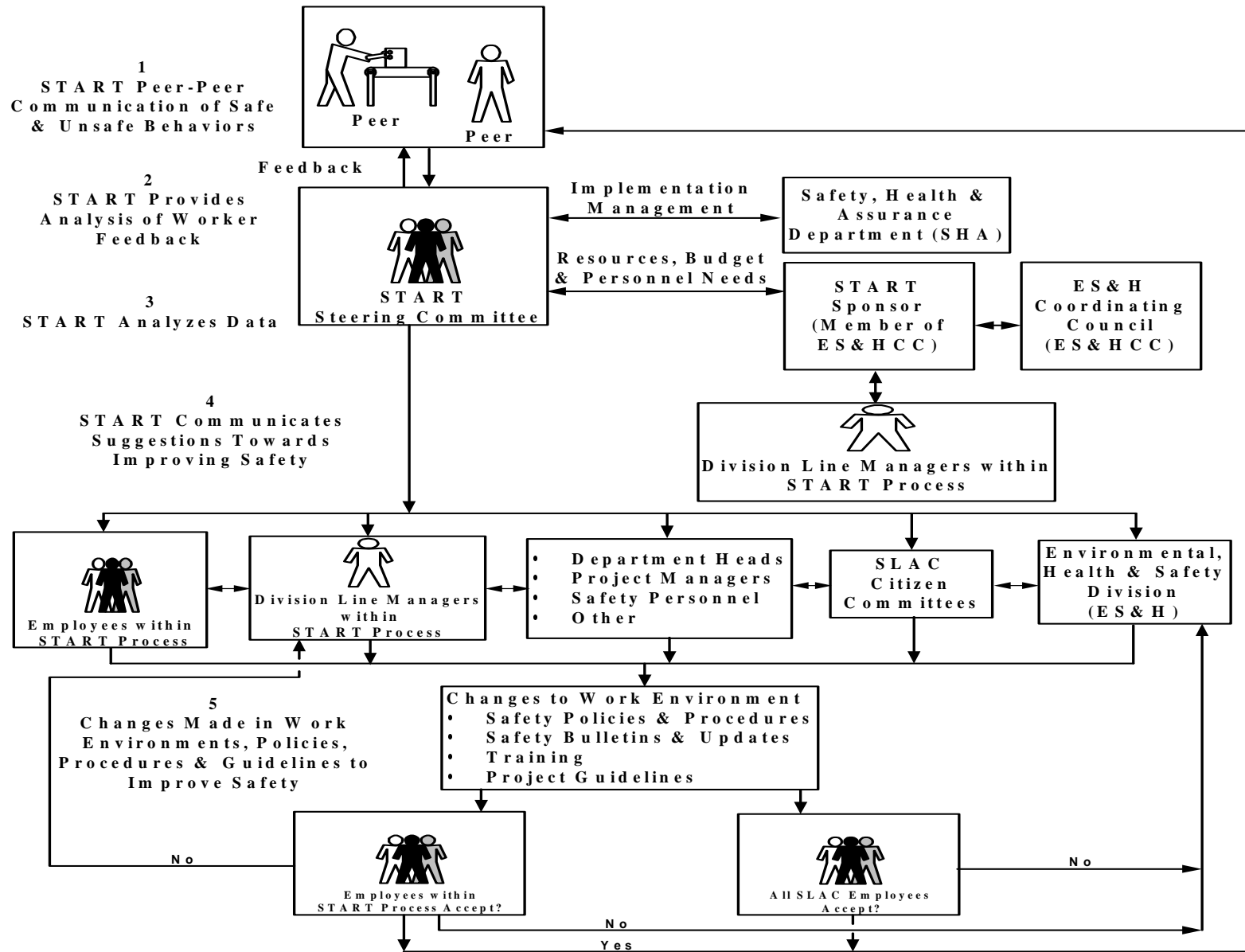
- Positive employee feedback.
- Employee participation.
- Supervisors recognized employees were “*Jazzed*” about the process.

## **Objective A: Status Reports Provided**

- Environment, Safety and Health Coordinating Council (ESH&CC).
- Local Safety Committee.
- Operating Safety Committee.



## S.T.A.R.T. Lines of Communication and Relationships for the Behavior-Based Safety Process



## Objective A: Helm Committee

- Quarterly Meeting or as needed.
- Provides guidance.
- Involves:
  - Committee Chairpersons, Department Heads, Union Stewards, Line Supervisors, BBS Coordinator, and Associate Directors.
- Initiated after additional groups are added.

## **Objective A: Phase II Implementation**

- March 27, 2001 Phase II initiated.
- Key individuals: Employees, Department Heads, Supervisors, and Union Stewards.
- Mechanical Fabrication Department.

## Objective A: Behavior-Based Safety Steering Committees

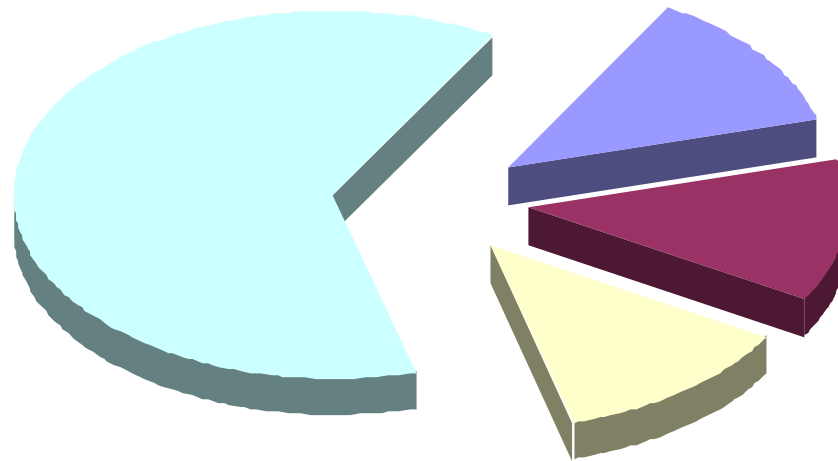
- Phase I - Safety  
Towards Avoiding  
Risk Today  
(S.T.A.R.T.)



- Phase II - Prevent  
Accidents Work Safe  
(P.A.W.S.)



## SLAC Behavior-Based Safety by Work Group



- Mechanical Fabrication Department, Tech. Div.
- Operational Health Physics, ESH Div.
- Site Engineering and Maintenance, Tech. Div.
- To be determined

## **Objective B:**

**State four steps to gain employee, union and management support for a behavior-based safety process.**

## Objective B: Step One

Involve the Union(s)  
from the very beginning.

- Start with Chief Steward and/or Business Agent.
- Proactive element for safety.
- Process **cannot** be the enforcement arm of safety.
- Process **cannot** lead to disciplinary action.

## Process Can Not Lead to Disciplinary Action

- Information collected is confidential.
- Names of the observed employees are **Not** collected.
- Data collectors are trained not to discuss observations.
- Do not keep records of individuals who have been observed.
- This statement appears on data collection sheets:  
*Process cannot lead to disciplinary action.*



## **Objective B: Step Two**

Establish an employee knowledgebase  
through communication.

## **Objective B: Step Three**

Establish a pilot study of employees to participate in the behavior-based safety process.

## **Objective B: Step Four**

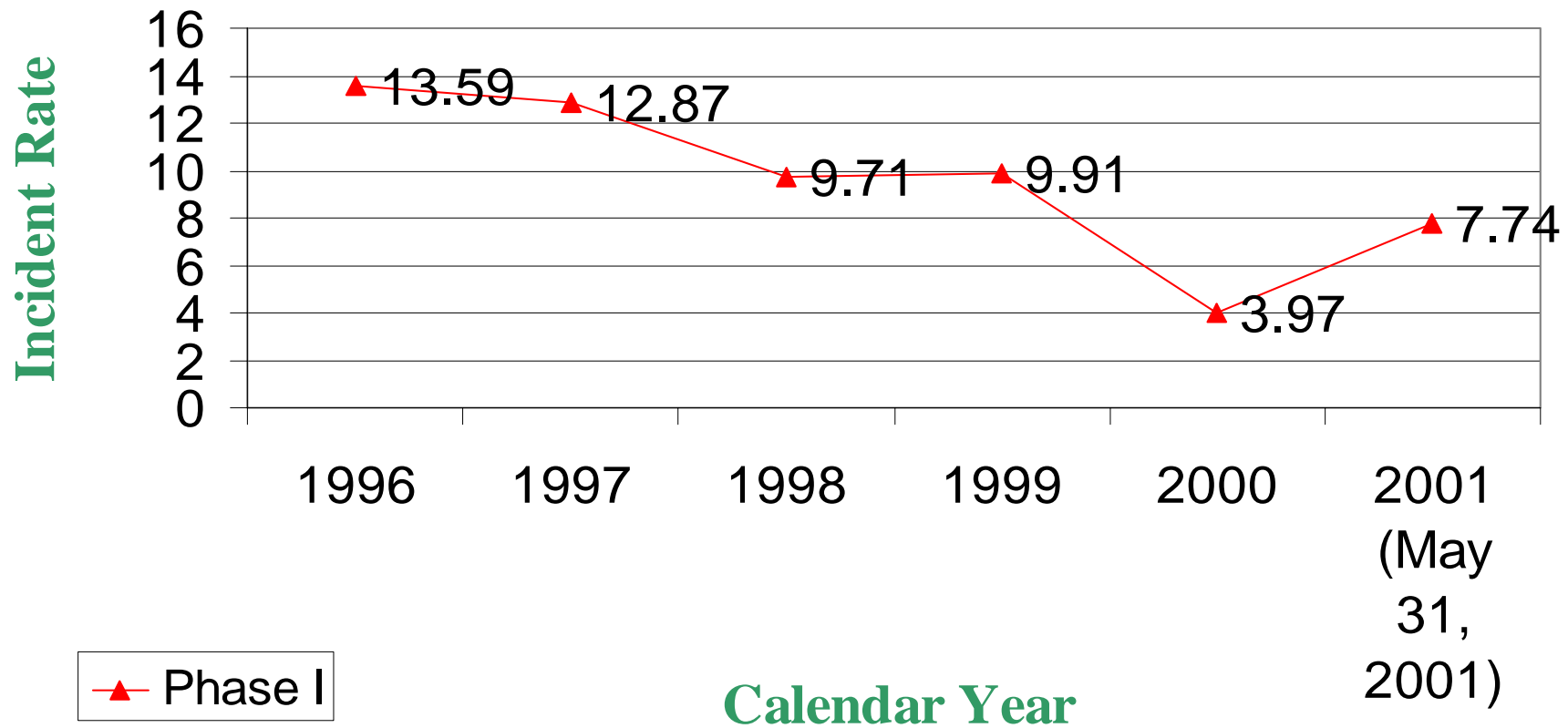
Establish a Helm  
committee to stay the course  
for future growth.

**Objective C:**  
**Evaluate the effectiveness of this process  
within your organization**

1. Foundation of understanding.
2. Union's perceptions and concerns.
3. Employees' perceptions and concerns.
4. Upper-management commitment.
5. Your personal commitment.

# An Anomaly or Not?

Incident Rate for DOE Recordables within Phase I  
Departments by Calendar Year  
(1996 to May 31, 2001)



## Review of Crossover Objectives

- A. Describe the **actions taken** to implement a sustainable behavior-based safety process.
- B. State **four steps** to gain employee, union and management support for a behavior-based safety process.
- C. Evaluate the **effectiveness** of this process within your own organization.

# *Thank you for attending!*

- A copy of my slides will be available on the AIHA web site.
- My email address is: [jturek@SLAC.Stanford.EDU](mailto:jturek@SLAC.Stanford.EDU)
- Stanford Linear Accelerator Center URL:
  - [www.SLAC.Stanford.EDU](http://www.SLAC.Stanford.EDU)



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