

*Idaho National Engineering and Environmental Laboratory*

# ***Behavioral Based Safety (BBS) at the INEEL***

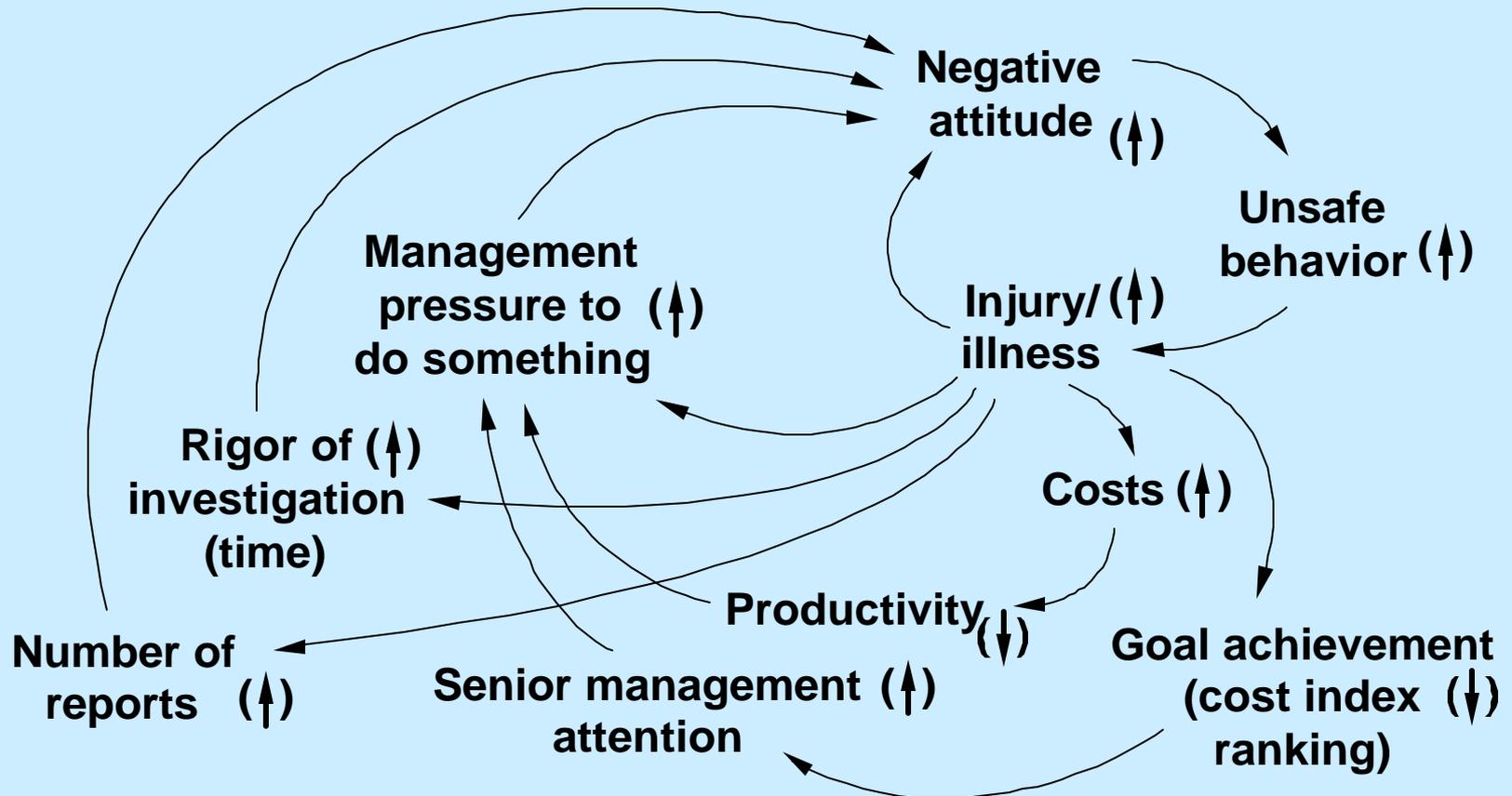
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***Bowen Huntsman***

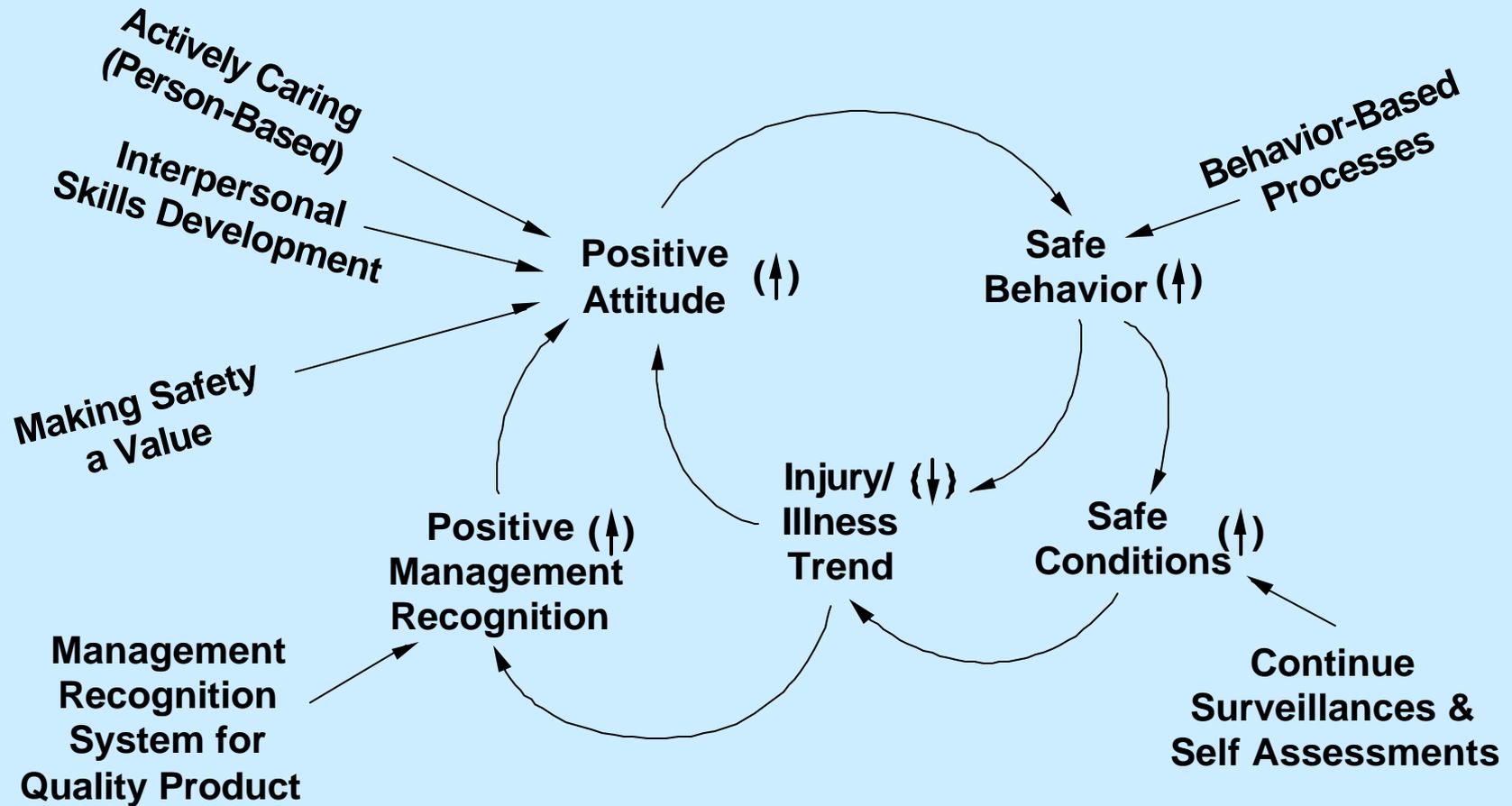
*September 2002*

# A Typical Safety Culture

*“What Is” Model Was Created*



# Safety Culture “Should Be” Model



# ***BBS – Historical Perspective at INEEL***

- 1991 Search > new approach***
- 1992-1993 Piloted BBS at Fleet Management and expanded into Total Safety Culture (TSC)***
- 1994 Hosted 1-day BBS workshop for DOE TSC Train-the-Trainer Workshop (Geller)***
- 1994-1998 Offered 4-hr workshop to all employees on TSC concepts and principles***
- 1999 Worker Applied Safety Process (WASP)***
- 2002 Extension into Human Performance and TSC Safety Minute***



# ***Why did the INEEL select TSC (Geller)***

- ***TSC emphasized sound concepts and principles and DO IT process***
- ***Train-the-Trainer rather than vendor implemented***
- ***Cost was reasonable***



# ***Why Did the INEEL Select TSC?***

- ***Focus was on sound concepts and principles, not simply a process***
  - ***Safety triangle***
  - ***Priority to value***
  - ***Process, not outcomes***
  - ***Interventions***
  - ***Actively caring***

# ***Why Did the INEEL Select TSC?***

***Train-the-Trainer approach, rather than vendor implemented***

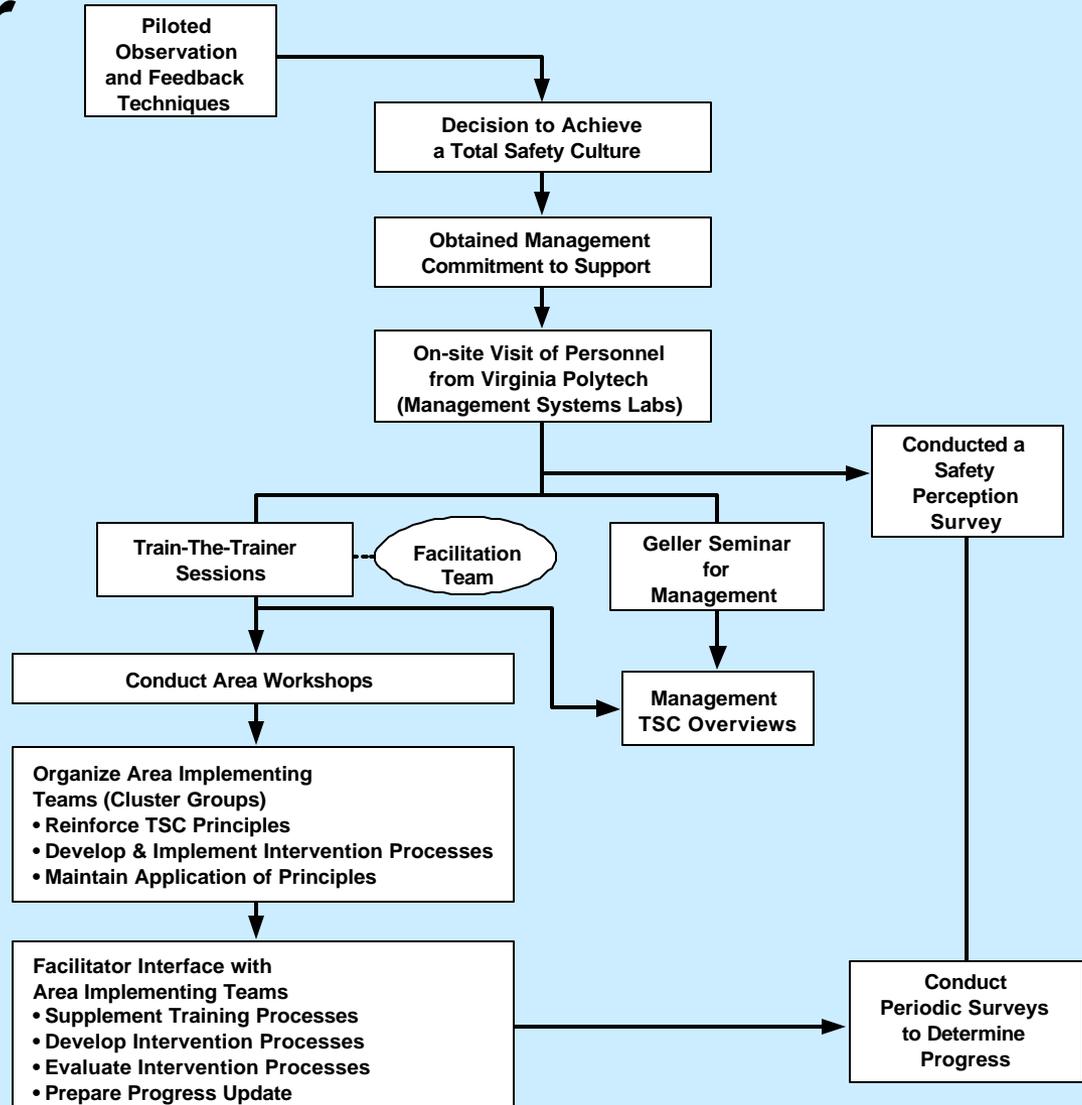


# ***Why Did the INEEL Select TSC?***

***Cost was reasonable***



# The Process for Implementing a Total Safety Culture



# **Total Safety Culture Implementation Steps**

- Step 1**      ***Achieve consensus to implement TSC***
  - ← ***Geller onsite presentations***
  
- Step 2**      ***Organize facilitator group***
  - ← ***Volunteers***
  
- Step 3**      ***Develop a written plan***
  - ← ***Perception survey***

# **Total Safety Culture Steps (cont'd)**

**Step 4            Conduct a Train-the-Trainer workshop**

**Step 5            Develop an all employee awareness package**

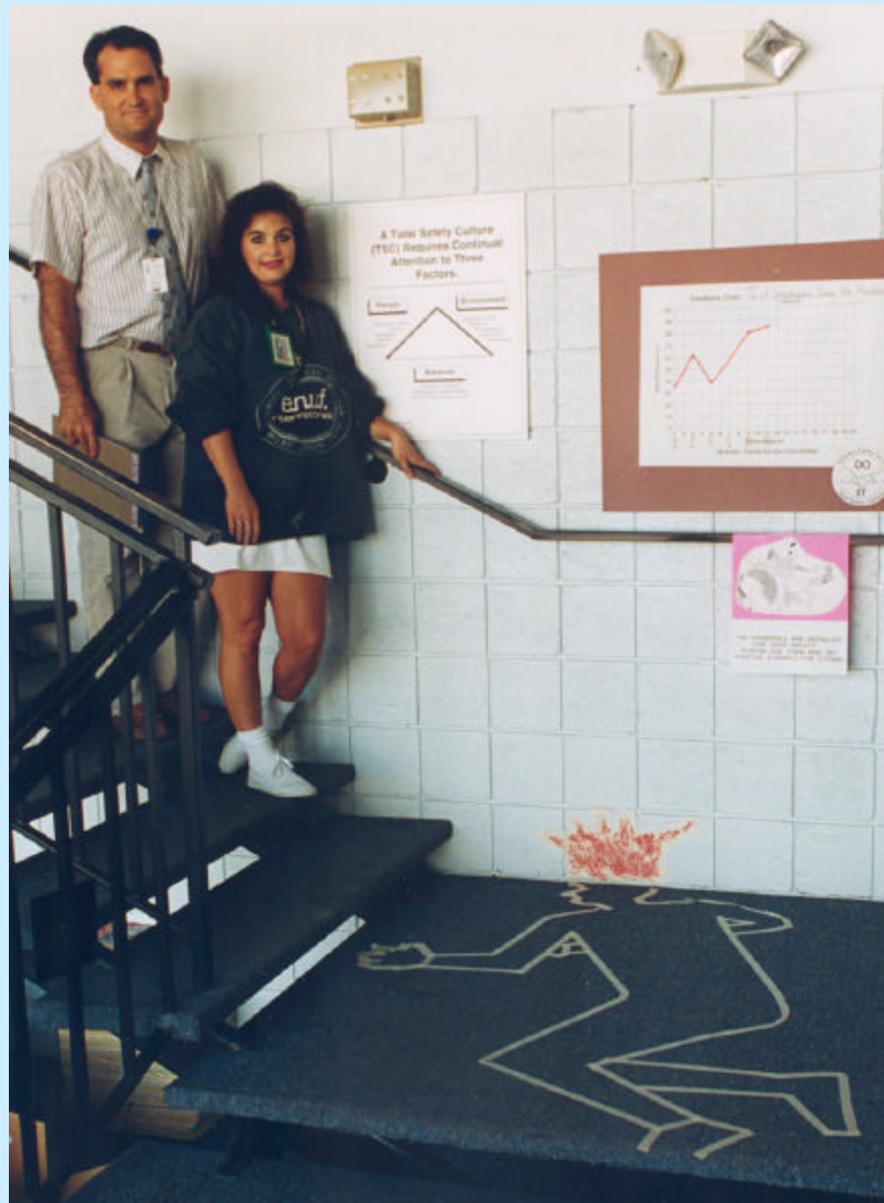
*← Emphasize feedback vs checklists*

**Step 6            Facilitators conduct area workshops**

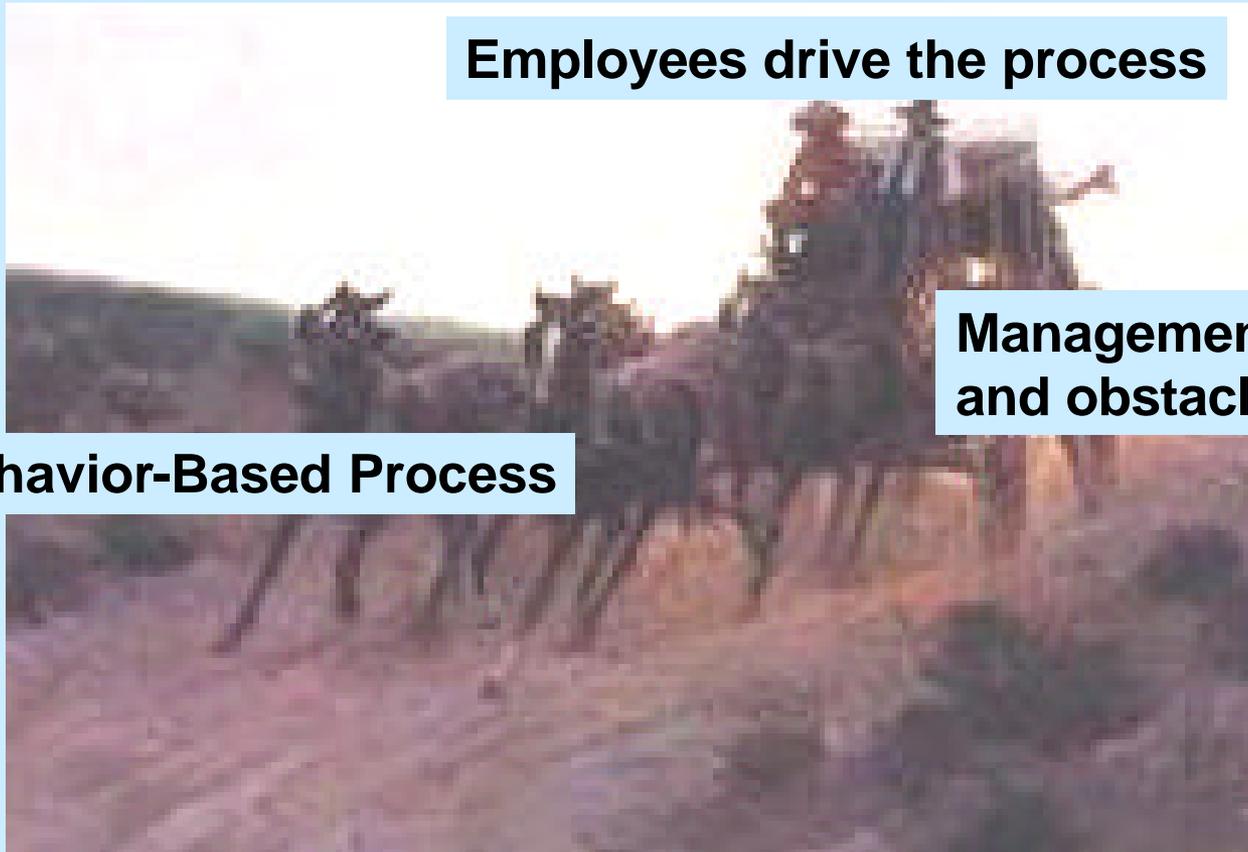
*← Voluntary*

**Step 7            Facilitators interface with working groups**

- Do ITs**
- Interventions**
- Integrate principles**



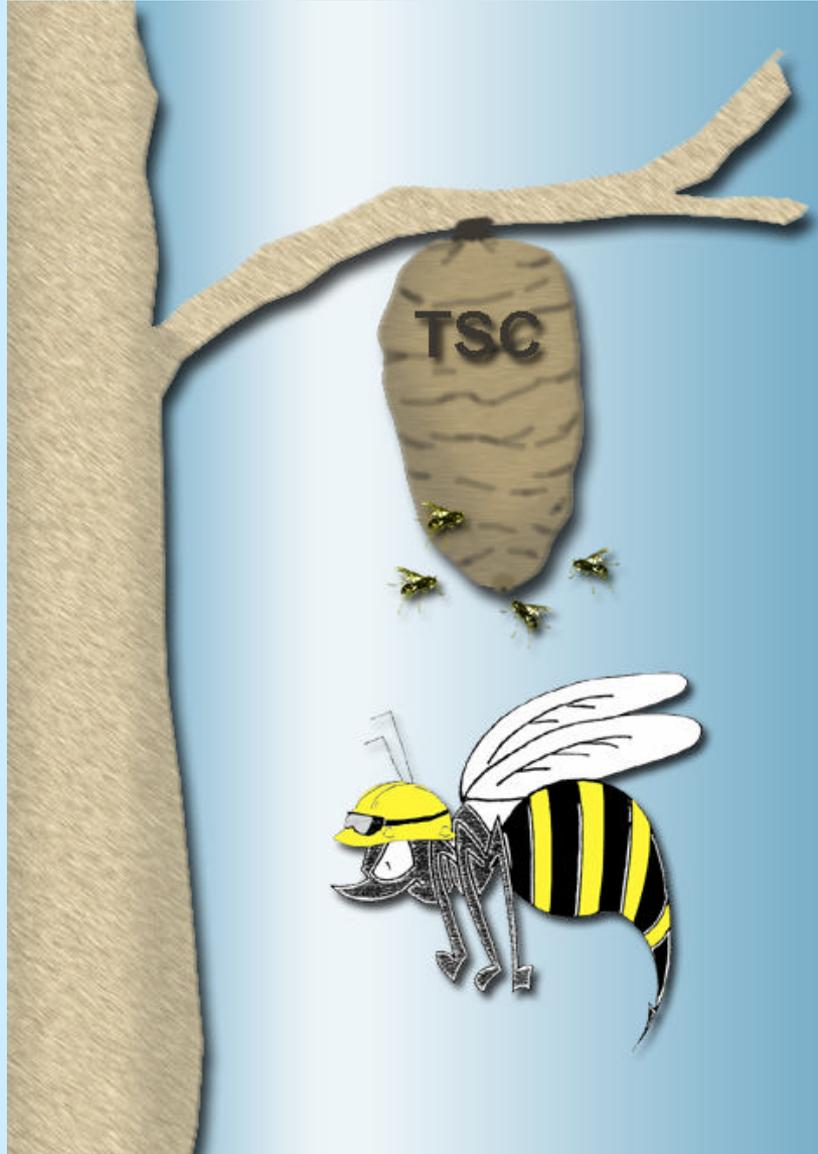
# ***Process succeeds if everyone understands their role***



**Employees drive the process**

**Management support  
and obstacle removal**

**Behavior-Based Process**



***WASP***  
*(Worker Applied  
Safety Process)*  
***was developed  
within the  
TSC environment***

# ***WASP is the formalized observation and feedback process***

- ***Developed by union committee***
- ***Workers applying TSC***



# ***WASP Committee Accomplishes the Following***

- ***Established a charter***
- ***Designed a logo***
- ***Reviews injury/illness data and identifies target behaviors***
- ***Developed company-wide checklists***
- ***Established WASP collection boxes and display boards***
- ***Developed a database to collect data and prepares reports***
- ***Developed an intranet WASP homepage***
- ***Developed and presented WASP overviews for general employees***
- ***Conducted annual training “retreats”***
- ***Developed a means to recognize employees for participation***



# WASP Charter

- ***Purpose***
- ***Team functions***
- ***Team composition/tenure***
- ***Voting protocol***
- ***Responsibilities***
- ***Administrative actions***
- ***Monthly intervention report***



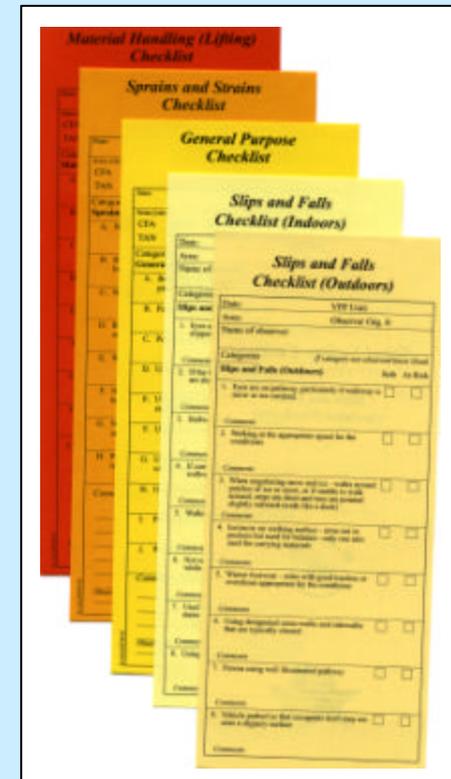
# Standard Checklists (2 years)

- **Body postures – musculoskeletal disorders**
- **Material handling (lifting)**
- **General purpose**
- **Sprains and strains**
- **Slips and falls**
- **Computer workstation**



**Areas developing specific checklist**

- **Radcon**
- **Craft**
- **Laboratory**



# WASP Collection Box

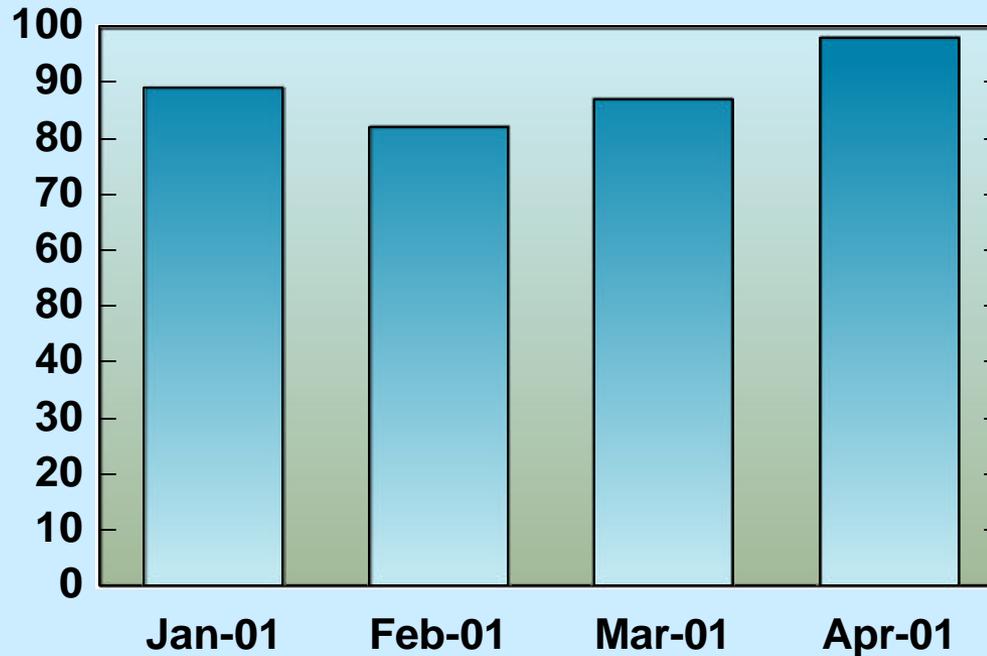


# ***WASP Database***

- ***Percent safe graphs (week/month/annual)***
- ***Percent safe details***
- ***Yearly checklist totals (area/type/total)***
- ***At-risk summaries***
- ***Comments by behavior***

# Monthly Percent Safe

Total checklists: 164



**From:** Jan 1, 2001

**To:** Mar 30, 2001

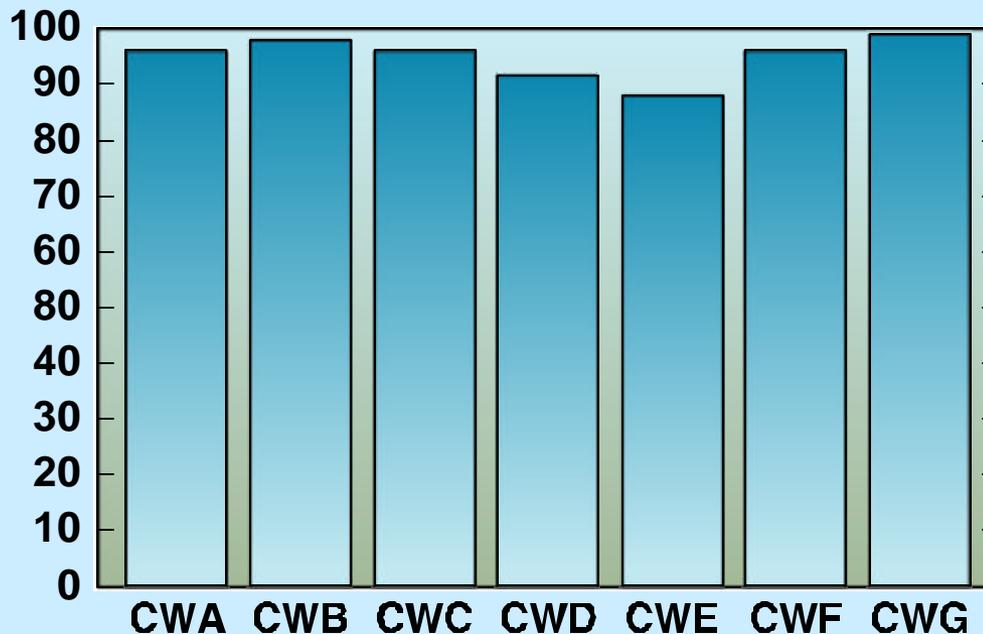
**Area:** CFA

**Checklist:** Slips and Falls Outdoors

**Behavior:** All

# Percent Safe Details

## Computer Workstations (MSD's)



**From:** Jan 1, 2001

**To:** Aug 27, 2001

**Area:** WCB

**CLCKey Description**

**CWA:** Mouse & keyboard at same level

**CWB:** Wrist in neutral position

**CWC:** Wrist not on sharp surface/edge

**CWD:** Frequent rest breaks

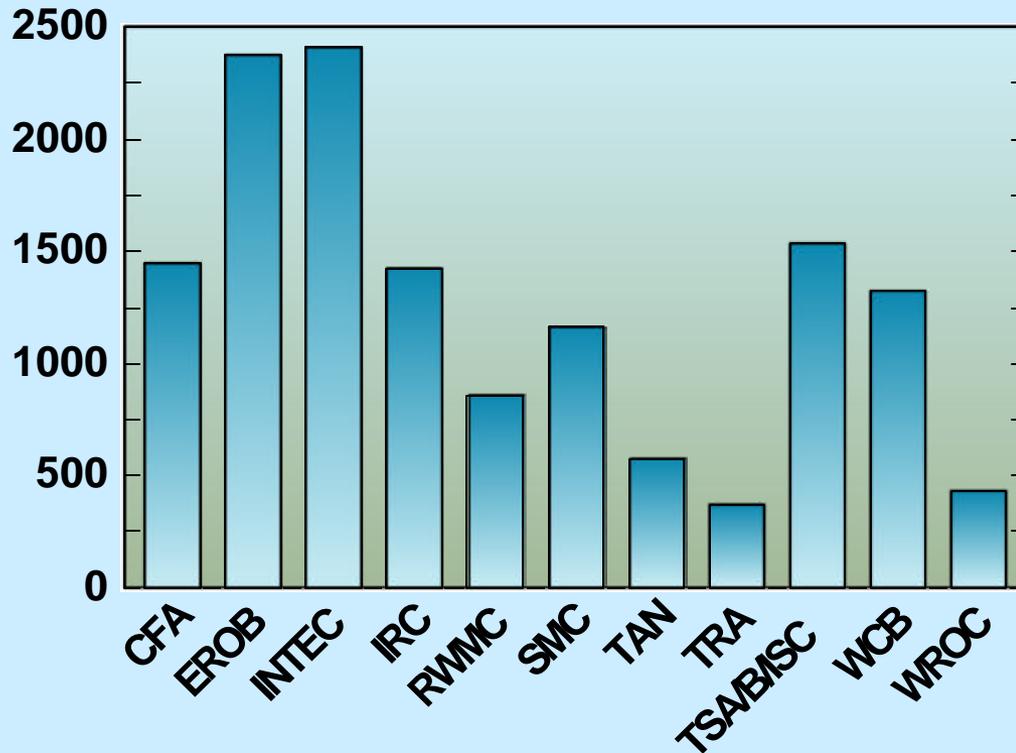
**CWE:** Performs stretches that involve hands, arms, wrists and fingers

**CWF:** Lower back supported

**CWG:** Monitor at eye level (may be lower for bifocals)

# Yearly Checklist Totals

Total checklists: 13,916



From: Jan 1, 2001

To: Dec 31, 2001

Checklist: All

# ***At Risk Summary***

## **CFA**

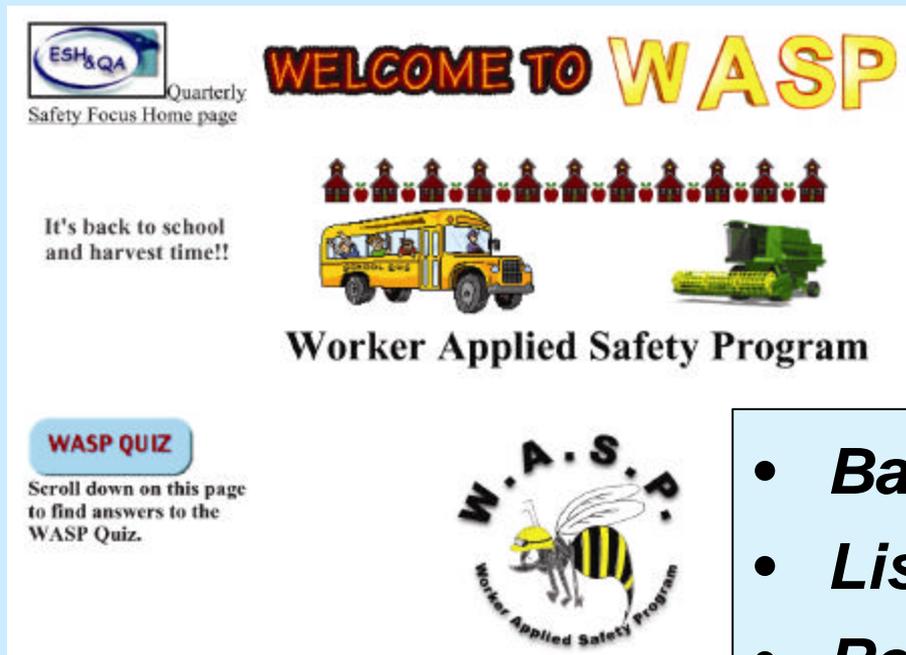
### ***Slips and Falls Outdoors***

<b><i>Description</i></b>	<b><i>Total at risk</i></b>
<b><i>Walking with proper balance when carrying objects</i></b>	<b><i>37</i></b>
<b><i>Uses crosswalk and sidewalks</i></b>	<b><i>32</i></b>
<b><i>Proper footwear</i></b>	<b><i>29</i></b>
<b><i>Uses clear and appropriate parking areas</i></b>	<b><i>25</i></b>
<b><i>Pathway free of obstruction and hazard</i></b>	<b><i>25</i></b>
<b><i>Walking at appropriate speed</i></b>	<b><i>23</i></b>
<b><i>Unobstructed view of pathway</i></b>	<b><i>23</i></b>
<b><i>Uses well illuminated pathways</i></b>	<b><i>8</i></b>

# Comments by Area and Month

Area: CFA                      Observation Checklist: Slips and Falls Outdoors

Date	Description	Value	Comments
<b>February, 2001</b>			
02/28/2001	Walking with proper balance when carrying objects	At-Risk	Hands in pockets
02/26/2001	Walking with proper balance when carrying objects	At-Risk	Arms loaded
02/21/2001	Uses crosswalk and sidewalks	At-Risk	Feedback on crosswalk usage
02/19/2001	Uses crosswalk and sidewalks	At-Risk	Not using the crosswalk
02/19/2001	Uses crosswalk and sidewalks	At-Risk	Not using sidewalk
02/19/2001	Uses clear and appropriate parking areas	At-Risk	Bus
02/14/2001	Proper footwear	At-Risk	Getting new shoes
02/14/2001	Uses crosswalk and sidewalks	At-Risk	Snow covered
02/14/2001	Uses clear and appropriate parking areas	At-Risk	Parking lot snow covered
02/12/2001	Walking with proper balance when carrying objects	At-Risk	Gave feedback
02/12/2001	Uses clear and appropriate parking areas	At-Risk	It was snowing
02/08/2001	Uses well illuminated pathways	At-Risk	Lights not working
02/07/2001	Walking with proper balance when carrying objects	At-Risk	Hands in pockets
02/06/2001	Walking with proper balance when carrying objects	At-Risk	No gloves
02/01/2001	Walking at appropriate speed	At-Risk	Running
02/01/2001	Pathway free of obstruction and hazard	At-Risk	Ice & snow
02/01/2001	Uses crosswalk and sidewalks	At-Risk	Running down road



ESH&QA Quarterly Safety Focus Home page

# WELCOME TO WASP

It's back to school and harvest time!!



## Worker Applied Safety Program

**WASP QUIZ**

Scroll down on this page to find answers to the WASP Quiz.



- ***Basic information***
- ***List of committee reps***
- ***Recognition recipients***
- ***Database trending***

# WASP Overviews

## Guidelines for Recording Safe & At-Risk Behaviors

- **Record repeated occurrences of a behavior.**
  - **If one employee is wearing 4 pieces of PPE correctly mark 4 safe behaviors.**
  - **If an employee lifts 5 times, 3 of which are performed safely and 2 of which are performed at-risk, mark 3 safe and 2 at-risk.**
- **Leave categories blank if the behaviors are not observed, applicable or relevant.**

**The WASP Committee  
“Pump You Up”  
Retreat**

**Thursday, October 19th**



<b>Continental Breakfast:</b>	<b>7:30 – 8:00 a.m.</b>
<b>Workshop Begins:</b>	<b>8:00 a.m.</b>
<b>Lunch Provided:</b>	<b>Noon – 1:00 p.m.</b>
<b>Workshop Concludes:</b>	<b>~ 4:30 p.m.</b>

**Special Guests**

- **Molly McClintock – Safety Performance Solutions, the original trainer of the WASP committee**
- **Kim Nutt, Hercules Corp., Portland, Oregon – Coming from a facility that is utilizing a behavioral observation and feedback process like the INEEL**

## Quarterly WASP Focus

**3rd QUARTER W.A.S.P. OBSERVATION**

**STRAINS AND SPRAINS** 

For this years 3rd quarter focus on Strains and Sprains, let's look at different sprains and strains. Last month we talked about sprained ankles. This month we are going to talk about the wrist.

- ***Slips, trips and falls***
- ***Sprains and strains***
- ***Cumulative trauma disorders***
- ***Material handling (lifting)***

***Focus on  
specific checklists***

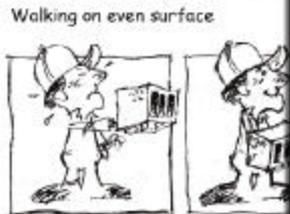
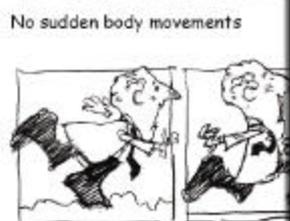
***Posters***

***Safety meeting information  
For line management***

## Sprains and Strains Checklist

*Purpose of WASP Observations:  
Behaviors are observable and trackable.  
It is employees actively caring for their co-workers. Employees observe selected work behaviors of their co-workers and provide feedback to minimize at-risk behavior and encourage safe behavior.*

At Risk	Safe	At Risk	Safe



# WELCOME TO WASP

It's back to school and harvest time!!

## Worker Applied Safety Program

### 3rd QUARTER W.A.S.P. OBSERVATION

# STRAINS AND SPRAINS

For this years 3rd quarter focus on Strains and Sprains, let's look at different sprains and strains. Last month we talked about sprained ankles. This month we are going to talk about the wrist.

The wrist is a collection of eight small bones that connect the forearm bones (radius and



*Have You Done A*  
**WASP**  
*Observation*  
*This Month?*

**S&H Goals and Personal Actions**



**Safety Meetings**



**Safety Shares**

**Job Safety Analysis**



**Training**

**Investigations**



# Employee Involvement



**Employee Safety Teams**



**Union Summits**



**Inspections**



**Post-job briefings**



**Pre-job Walkdowns**



**Community Outreach**

**Ergonomics**



# Recordable Case Rate

1992 - BBS Piloted at Transportation

1994 - Train-The-Trainer in TSC

