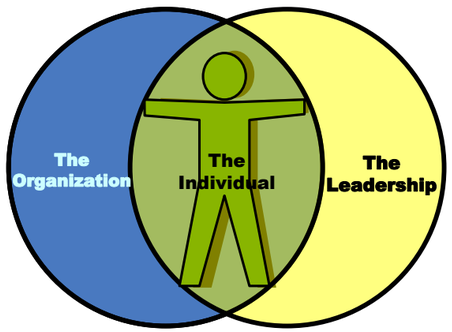
Behavior is what people do . . . Results are achieved by behaviors, the mental and physical efforts --- of a human --- to "perform" and produce desired or targeted outcomes.



BEHAVIOR + RESULTS =
(HUMAN) PERFORMANCE

HPI, Human Performance Improvement

In an **Individual** sense: **HPI** reflects a series of behaviors executed to accomplish specific task objectives (results).

In an **Organizational** sense: **HPI** is the sum of what people (individuals, leaders, managers) are doing and what people have done; the aggregate system of processes, influences, behaviors, and their ultimate results.

As practiced in the field and in the office, **HPI** is not so much a program as it is a distinct way of thinking. Craft personnel, technical & support personnel, engineers, supervisors, managers, and senior leaders can achieve higher levels of quality, incident-free outcomes for their companies, clients and customers through HPI. Over the past 30 years many technologically complex high risk organization have adopted human performance principles, concepts, and practices to consciously reduce error and bolster controls, in order to minimize accidents and prevent SIFs and severe property/equipment damage and operational loss events).

More recently, **HPI** is being integrated into EHS excellence efforts to promote a ***just and strong "safety conscious" culture*** that does not blame people for making honest mistakes (i.e., errors from unintentional slips, lapses, or oversights), nor punish them for reporting safety problems or concerns.

Through HPI, we can provide a more practical way of dealing with the hazards and risks to human performance, by focusing on the behaviors (individual and leadership) needed to reduce errors, as well as promoting improvements in our organizational processes and values.

Course of Instruction involves: Three 2-Hour modules on:

- ***Overview: HPI in a Nutshell*** *to understand the fundamentals of HPI*
- ***HPI Tools: HERTs*** *(Human Error Reduction Tools & Techniques)*
- ***Critical Steps and the SAFER Model*** to manage and mitigate high risk
- ***Cognitive Biases*** *(Inattention Blindness, Common Sense, Optimism Bias)*
- ***Hu Review*** for Root Cause Analysis and Shared Accountability Review

LATER: More HPI Tools [HERTs applications training modules] on specific tools & techniques cited in NFPA 70e-2018

Certificate Program in Culture & Human Performance for Safety

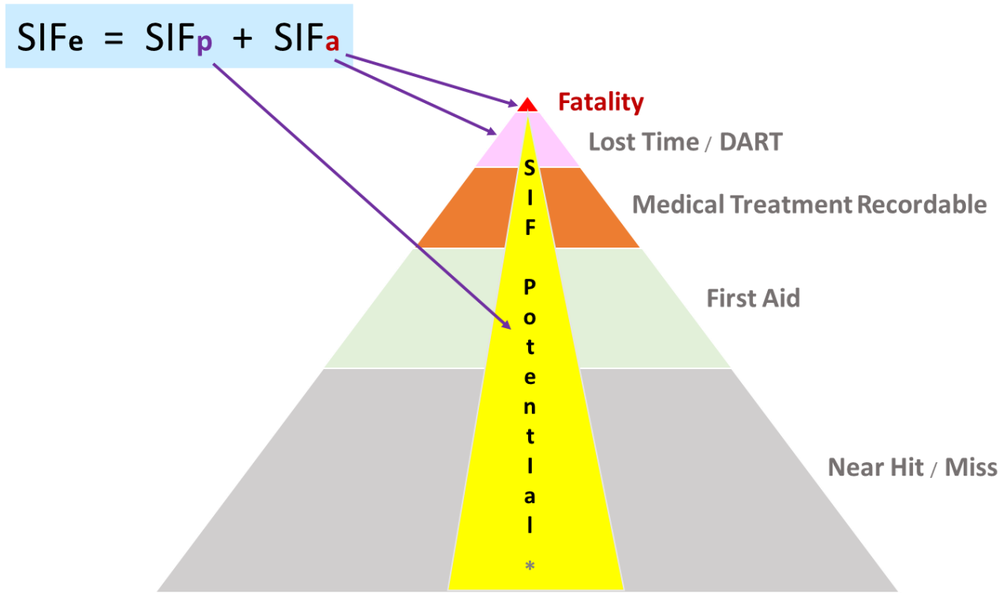
Three cutting edge, inter-related safety subject areas offered by

Safety Council of Northwest Ohio for

Achieving Excellence by Focusing Safety on "No Serious Harm"

Instructor: **Dave Varwig**, CSP, CSHM, CUSA, NiSource VP-Safety, retired

We need to recognize when we are exposed to a Serious Injury or Fatality (SIF) situation and be willing to invest the time & effort to exercise "positive personal control" over our own well being through the application of multiple layers of protection involving barriers, controls, and defenses -- to protect ourselves and co-workers from "serious harm" should we make an "honest mistake" or the unexpected or unintended occurs.



A **SIF Exposure** is a high-risk situation in which safe work controls were either absent, ineffective or not complied with, and did or reasonably could have resulted in a serious or fatal injury if allowed to exist or continue, involving a high energy / risk situation that would typically be subject to Life Saving Rules – LSRs.

SIF (Serious Injury or Fatality) is an event that results in a *life-threatening injury or illness* that if not immediately addressed would be likely to lead to death of the affected individual and usually requires intervention of emergency response personnel to provide life-sustaining support, or that results in a *life-altering injury with permanent disability* causing permanent or long-term impairment or loss of use of an internal organ, body function, or body part.

Life-threatening examples: -injury involving damage to the brain or spinal cord; -event that requires the application of CPR or an external defibrillator; chest or abdominal trauma affecting vital organs; -serious burns. Life-altering examples*: -significant head injury; -spinal cord injuries; -paralysis; -amputations; -broken or fractured bones; -serious burns.

Course of Instruction involves: A 4-Hour training session that not only explains the subject matter but details exactly what can be done to prevent a SIF through the use of a 24 page guide that will be provided, titled: ***SIF (Serious Injury & Fatality) Prevention Guide in Support of LSRs, Life Saving Rules***

Topics addressed include: Significant Hazards, Hazardous Energies, High Risk Activities, Preventive Measures, SIF Exposure Equation & Flowchart, Human Performance Improvement (HPI), Critical Steps, The Hierarchy of Controls, Safeguards & Multiple Layers of Protection, 9 Life Saving Rules related topics . . . Also included will be a review of a model on the elements of SAFE WORK, SIF literature, and background on the "Accident Pyramid."

People will never perform better than what the Organization enables and what Leadership communicates on its safety expectations (that is, the culture for human performance), and follows through with known consequences for not working to safety requirements.

Work is accomplished through people (human performance). When an individual employee makes an ***honest mistake***, we need to keep in mind the employee's choices and decisions are most often a direct reflection of what the organization enabled and the leadership allowed.

A "just" culture creates an environment of trust in which people are encouraged to provide all safety-related information. Any event related to safety, especially human or organizational errors, must be considered as a valuable opportunity to improve operations through experience and share feedback for "lessons-to-be-learned."

The ***Just Culture approach*** is not to look for fault or place blame, but to determine **why** people are behaving as they are, and apply consequences that promote *safe work* behaviors. Instead of simply blaming the individual, our ***first consideration*** must be to determine whether supervision, leadership, and organizational support ***properly prepared the employee to perform their work safely***.

When unsafe or non-compliant behavior is involved, we can apply a ***"Shared Safety Accountability" process*** to fairly, impartially, & consistently evaluate risk–choices involved, before deciding whether disciplinary action is necessary to reinforce safe work behaviors in the future.

Shared (Safety) Accountability means: 1) The company is responsible and accountable for providing processes, procedures, & practices, proper training and the right tools & equipment, with appropriate management oversight/guidance for completing safe work. 2) Each individual employee is responsible to work as they were trained & be accountable to follow safe work rules - procedures – practices.

Course of Instruction involves: Three 3-Hour training modules on:

- ***Just Culture Overview*** including 6 question discussion exercise to evaluate yours
- ***Shared (Safety) Accountability*** Process applied to Unsafe Acts and Violations (in an interactive student exercise)
- ***JC Protocols*** for Incident Investigation and Lessons Learned Reviews