The Human Factors Analysis and Classification System (HFACS)

A framework for classifying human error based on the
Swiss Cheese Model of Accident Causation

ORGANIZATIONAL INFLUENCES

- Resource Management
- Organizational Culture
- Organizational Process

UNSAFE SUPERVISION

- Inadequate Supervision
- Planned Inappropriate Operations
- Failure to Correct a Known Problem
- Supervisory Violation

PRECONDITIONS FOR UNSAFE ACTS

ENVIRONMENTAL FACTORS

- Physical Environment
- Technological Environment

CONDITION OF THE OPERATOR

- Adverse Mental State
- Adverse Physiological State
- Physical/ Mental Limitations

PERSONNEL FACTORS

- Communication and Coordination
- Fitness for Duty

UNSAFE ACTS

ERRORS

- Decision Errors
- Skill-based Errors
- Perceptual Errors

VIOLATIONS

- Routine Violations
- Exceptional Violations