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**

**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

**Environmental Factors**
- Physical Environment
- Technological Environment

**UNSAFE ACTS**

**PRECONDITIONS FOR UNSAFE ACTS**

**CONDITION OF THE OPERATOR**

**Personnel Factors**
- Communication and Coordination
- Fitness for Duty

**Unsafe Acts**

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- Decision Errors
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