

WUTC and Pipeline Safety



Mission Statement

The UTC protects consumers by ensuring that utility and transportation services are fairly priced, available, reliable and safe



WUTC priorities

- ▶ Consumer protection
- ▶ Safety



What are the WUTC's pipeline Safety responsibilities

Ensure public health, safety and environmental quality by:

- ▶ Improving safety laws and regulations
 - ▶ Conducting quality inspections
 - ▶ Enforcing laws and regulations
 - ▶ Providing technical assistance to pipeline operators, local governments and communities
 - ▶ Educating local communities
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Who are the Pipeline Companies?

- ▶ Who we regulate
 - Gas/Liquids
 - Distribution/ Transmission
 - Master Meters
 - Small Gas Systems



Type of Pipelines

Commodity	Type	Interstate	Intrastate
Gas	Distribution	7	
	Transmission	3	6
	Hydrogen		3
	Biogas		1
Liquids	Transmission	4	4
	Breakout tanks	1	2

Federal/State government

- ▶ PHMSA
- ▶ Interstate/intrastate
- ▶ Certification
- ▶ NTSB



What are operators required to Do?

- Comply with Federal, State and Company requirements
 - USC/ RCW
 - United States Code
 - Revised Code of Washington
 - CFR/WAC
 - Code of Federal Regulations
 - Washington Administrative Code
 - Company Standards
 - Industrial Standards
 - Manufacturers Recommendations

How do we Regulate

- Rulemaking
- Perform Inspections
 - Standard
 - Construction
 - Investigation
 - Accident
 - Near Miss
 - Complaints
 - Program
 - Integrity Management
 - Operator Qualifications
 - Public Awareness
 - Drug and Alcohol
- Reporting
 - Incident
 - Safety Related Conditions
- Compliance /Enforcement



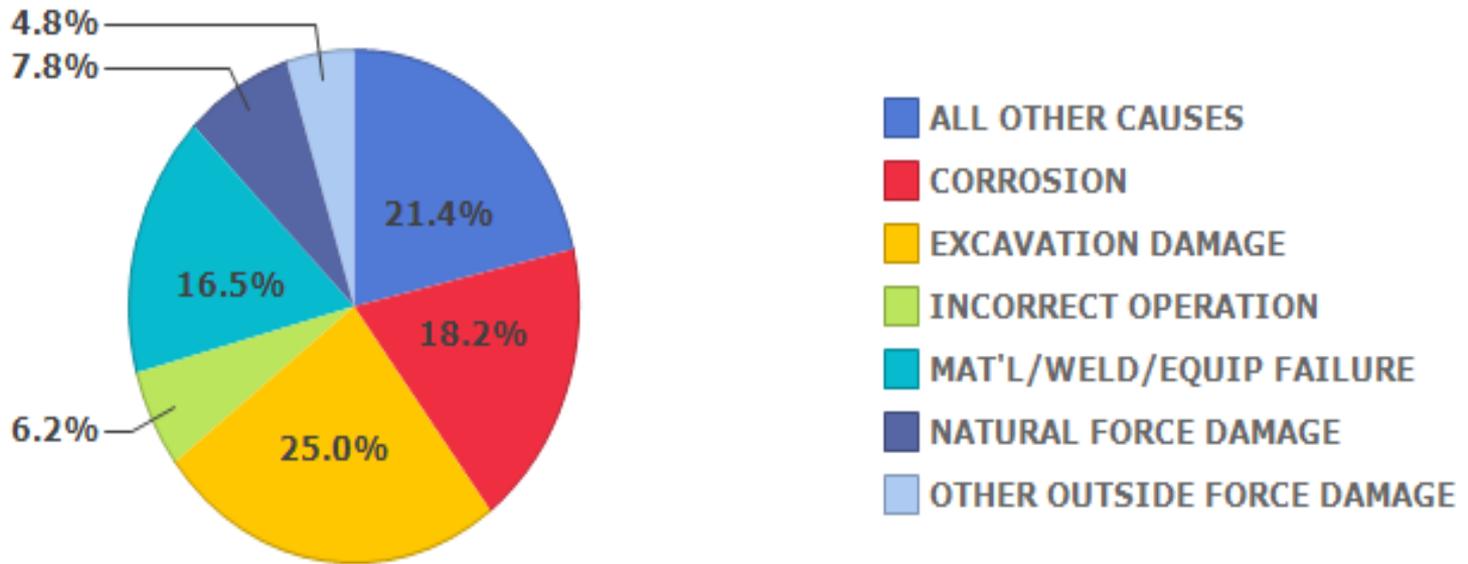
Why is this Important

- ▶ Public/worker Safety
- ▶ Risk
- ▶ Swiss Cheese Theory
- ▶ Safety Pyramid



Significant Incident causes

Significant Incident Cause Breakdown
National, All Pipeline Systems, 1990-2009



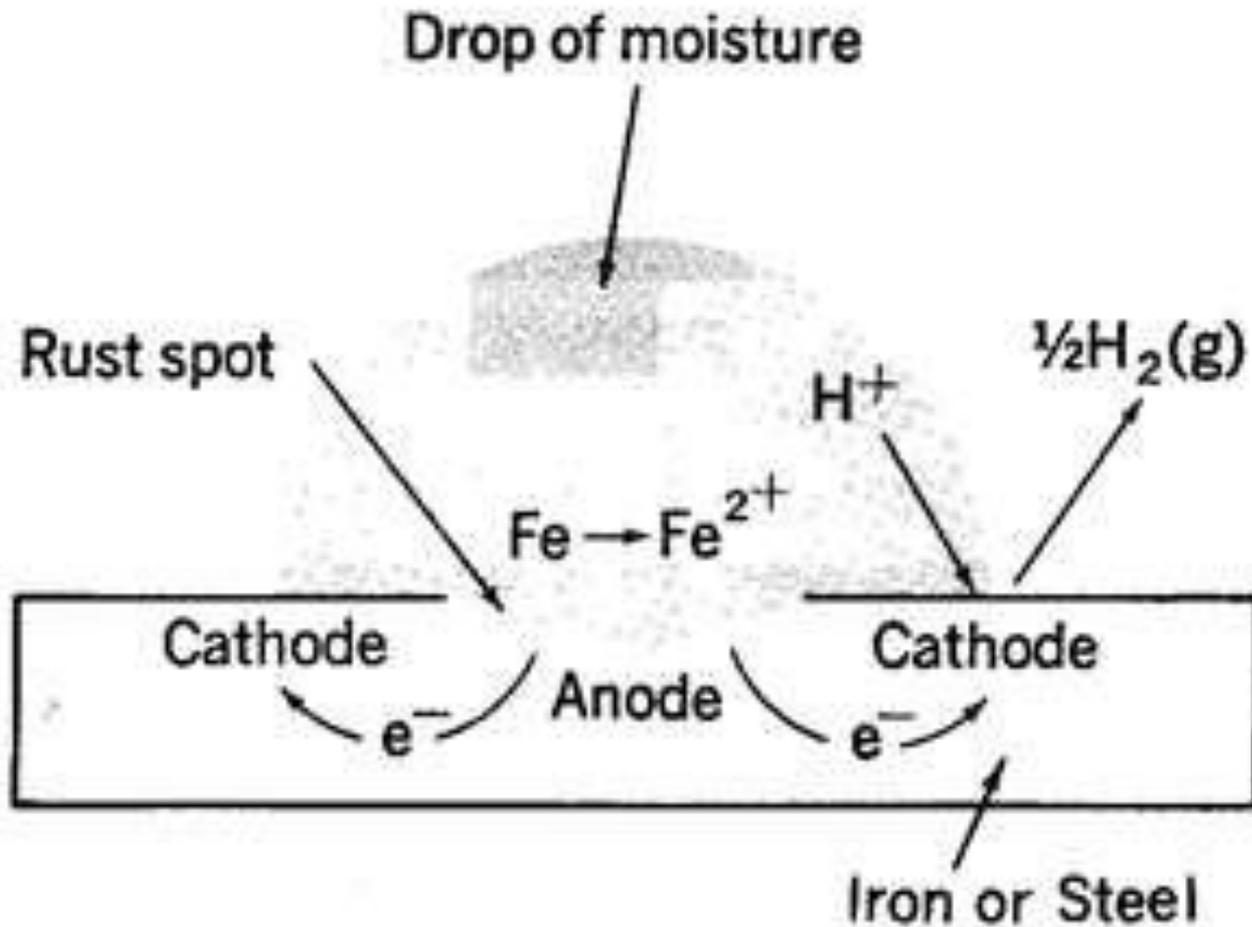
Source: PHMSA Significant Incidents Files November 30, 2010

Damage Prevention

Third Party Damage from Distribution Annual Reports

Year	Total Third Party Incidents	Inaccurate locates	Failure to use reasonable care	Excavating prior to locating	Failure to call for locates	Other
2009	1462	149	651	66	473	123
2008	1830	213	677	64	630	146
2007	2483	199	1175	342	403	88
2006	2749	206	1031	418	1013	271
2005	2706	217	867	470	1151	283

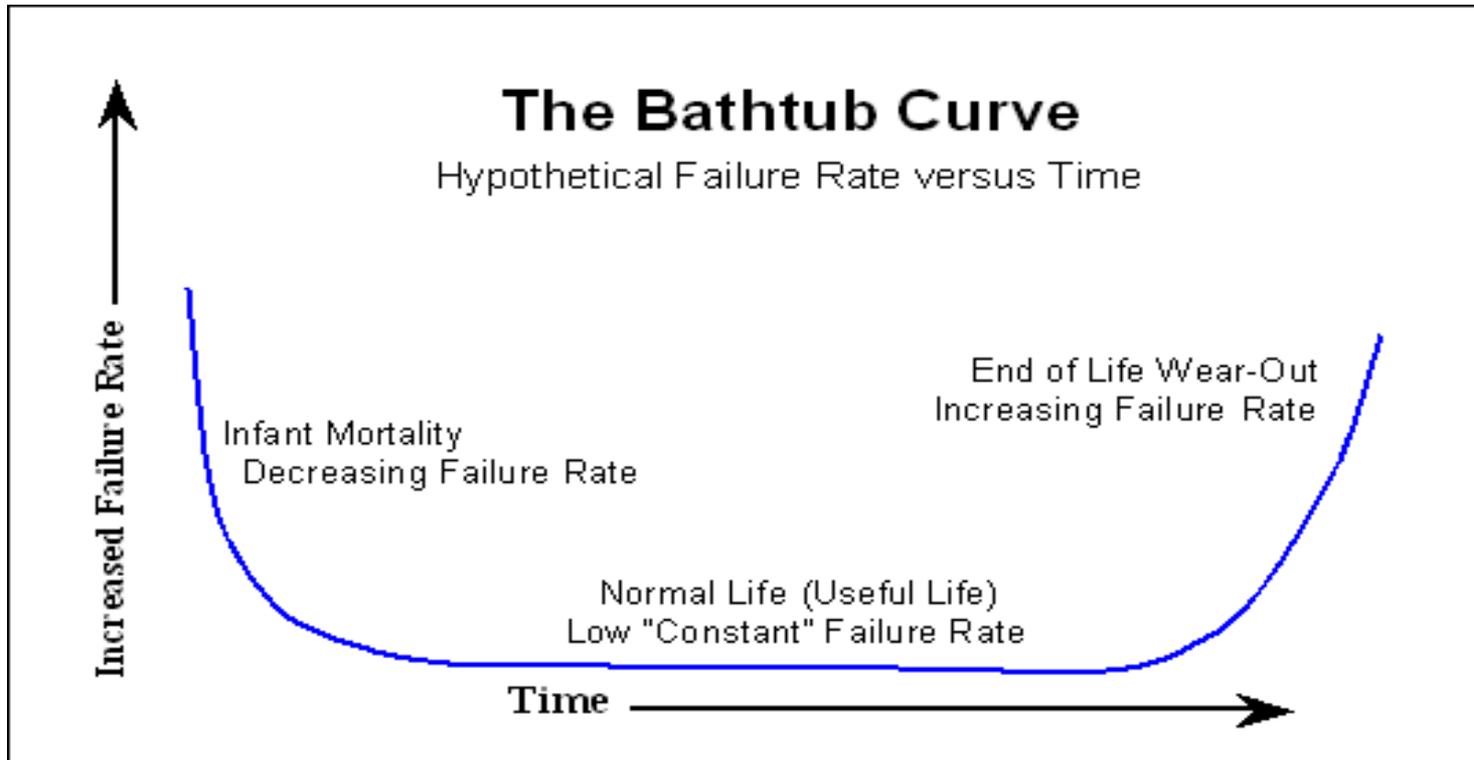
Corrosion



Outside Force



Bathtub Curve

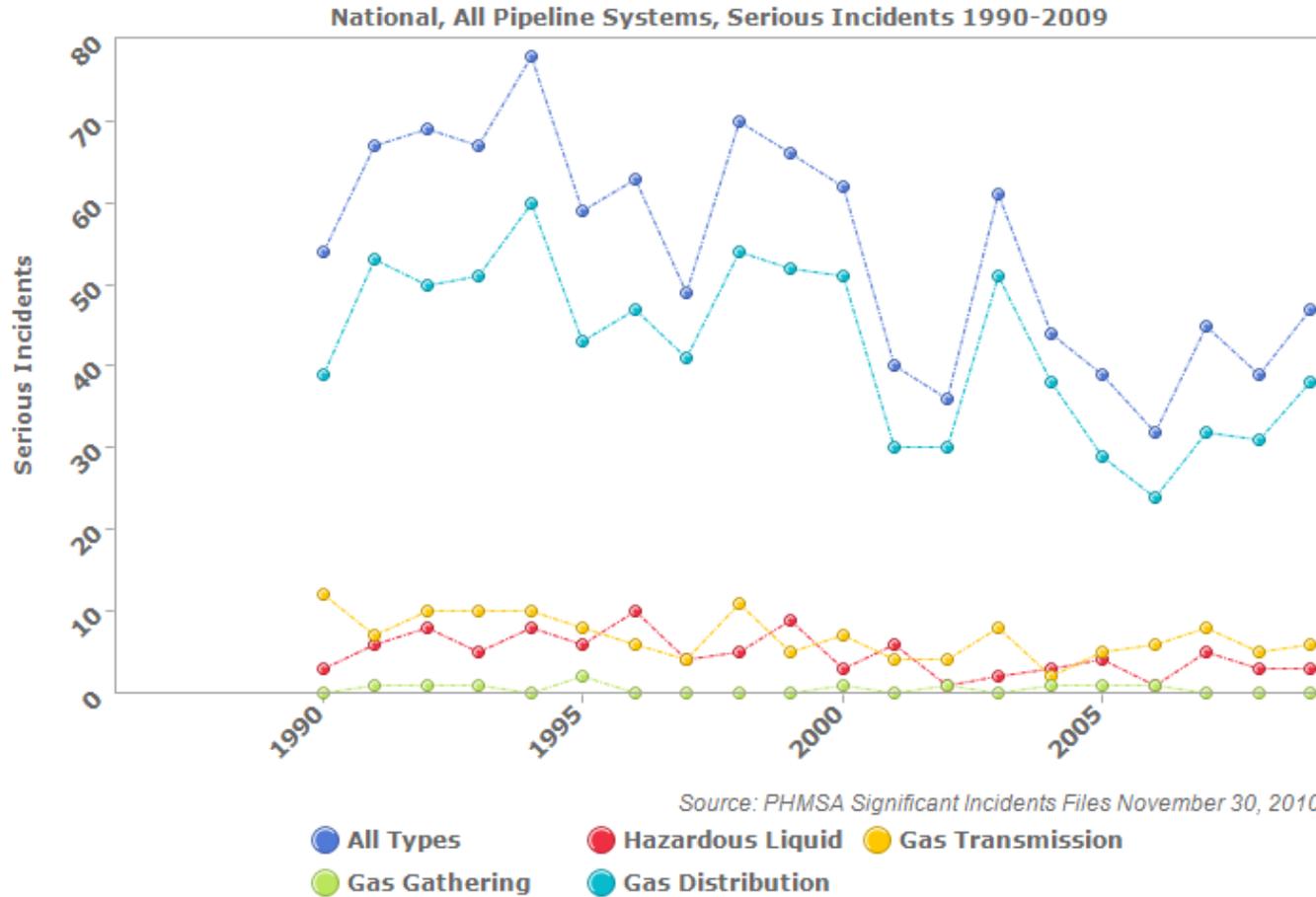


Human Factors

- ▶ Inadequate training
- ▶ Mental/ physical stress
- ▶ Lack of knowledge
- ▶ Lack of skill
- ▶ Improper motivation / Misuse
- ▶ Lack of Attention
- ▶ Perception failure
- ▶ Communication failure
- ▶ Slips, lapses
- ▶ fatigue



Transmission vs Distribution

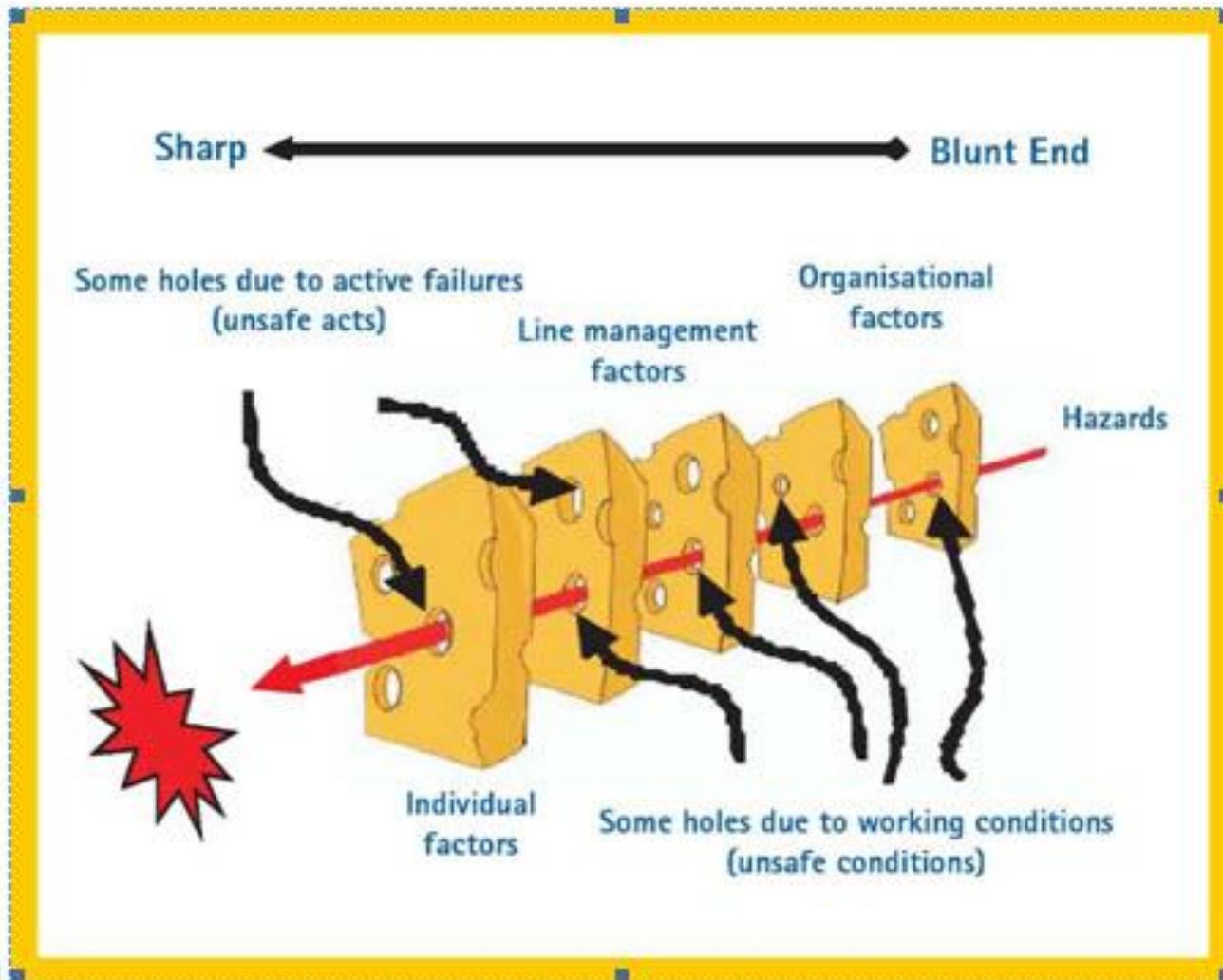


Risk

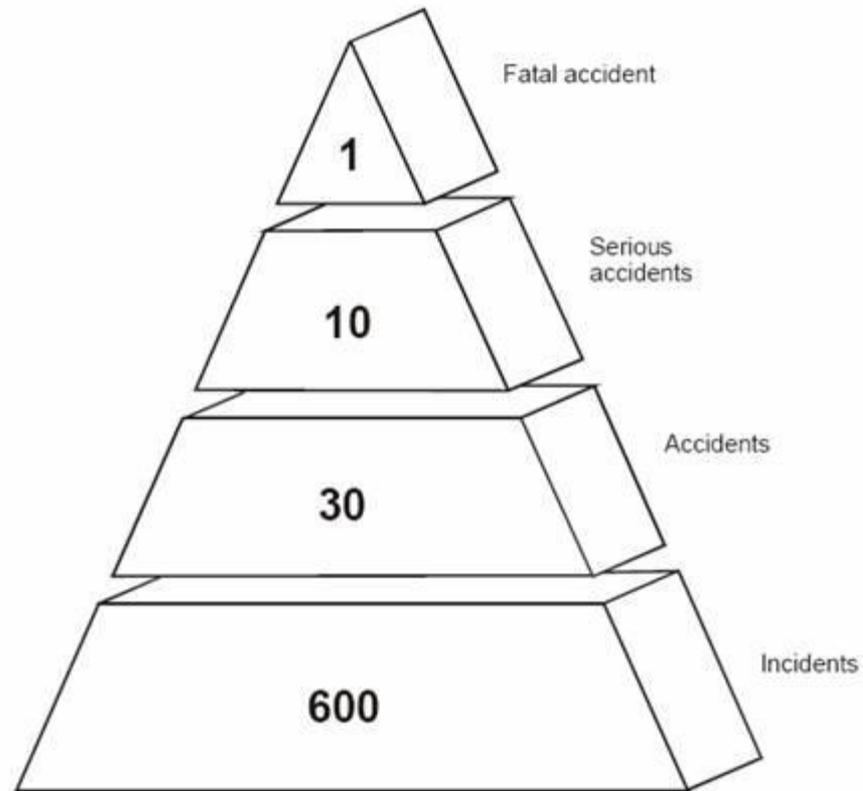
- ▶ Probability x Consequence



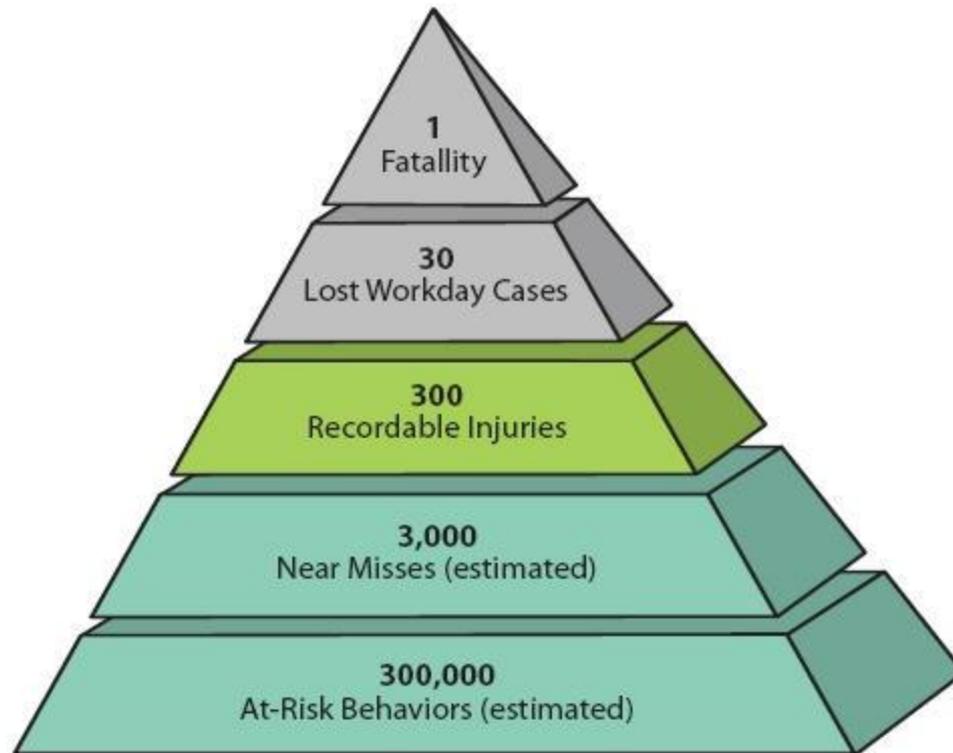
Swiss Cheese Safety Theory



Accident Pyramid



ConocoPhillips Marine pyramid



Washington Significant Incidents

Date	Company	Location	Injuries	Fatalities	Cause
11/9/1987	PSE	Silver lake	2	0	Operator Error, static
8/30/1990	PSE	Auburn	1	0	Operator Error, Static
10/31/1991	PSE	Bellevue	1	0	Third Party Damage, Operator error
1/20/1993	PSE	Monroe	4	0	Wind, Electrical arc
5/4/1998	PSE	Mercer Is	2	0	Operator error, Static
6/10/1999	Olympic	Bellingham	10	3	Third Party Damage, operator & design error
6/22/2004	PSE	Seattle	1	0	Operator error, static
8/28/2004	PSE	Bellevue	1	0	Operator error
9/2/2004	PSE	Bellevue	0	1	Corrosion, operator error
6/20/2007	Avista	Spokane	2	0	Operator error, static
12/26/2008	Avista	Odessa	1	0	Construction error, rock dent

Questions?

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