

DRIVEN BY VALUE



Prevention of Incidents

2018

Our Three-Point Safety Plan

- Fatality Prevention
- Reduce the Severity of Incidents
- Continual Improvement

Fatal Risk Management

Our Fatality Prevention Program continues this year with the introduction of the Fatal Risk Management Program.

Remember,

Fatality Prevention is not a “flavor of the month” activity. This has already been a multi year commitment, and we are continuing this program with FRM into the next several years.

Because it's been over 8 years since we've had a year with ZERO fatalities



Fatal
Incidents



People
Fatally
Injured



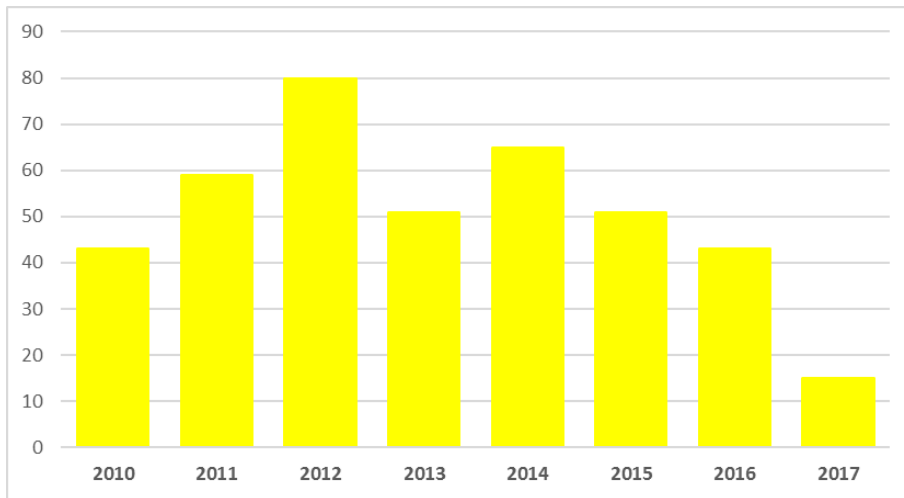
2010	2011	2012	2013	2014	2015	2016	2017
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1/1/2010 – 12/21/2017, counts from IMS including all active and divested sites.

Because potential fatal events continue to occur...



PFE's by Year



PFE's by Fatal Risk

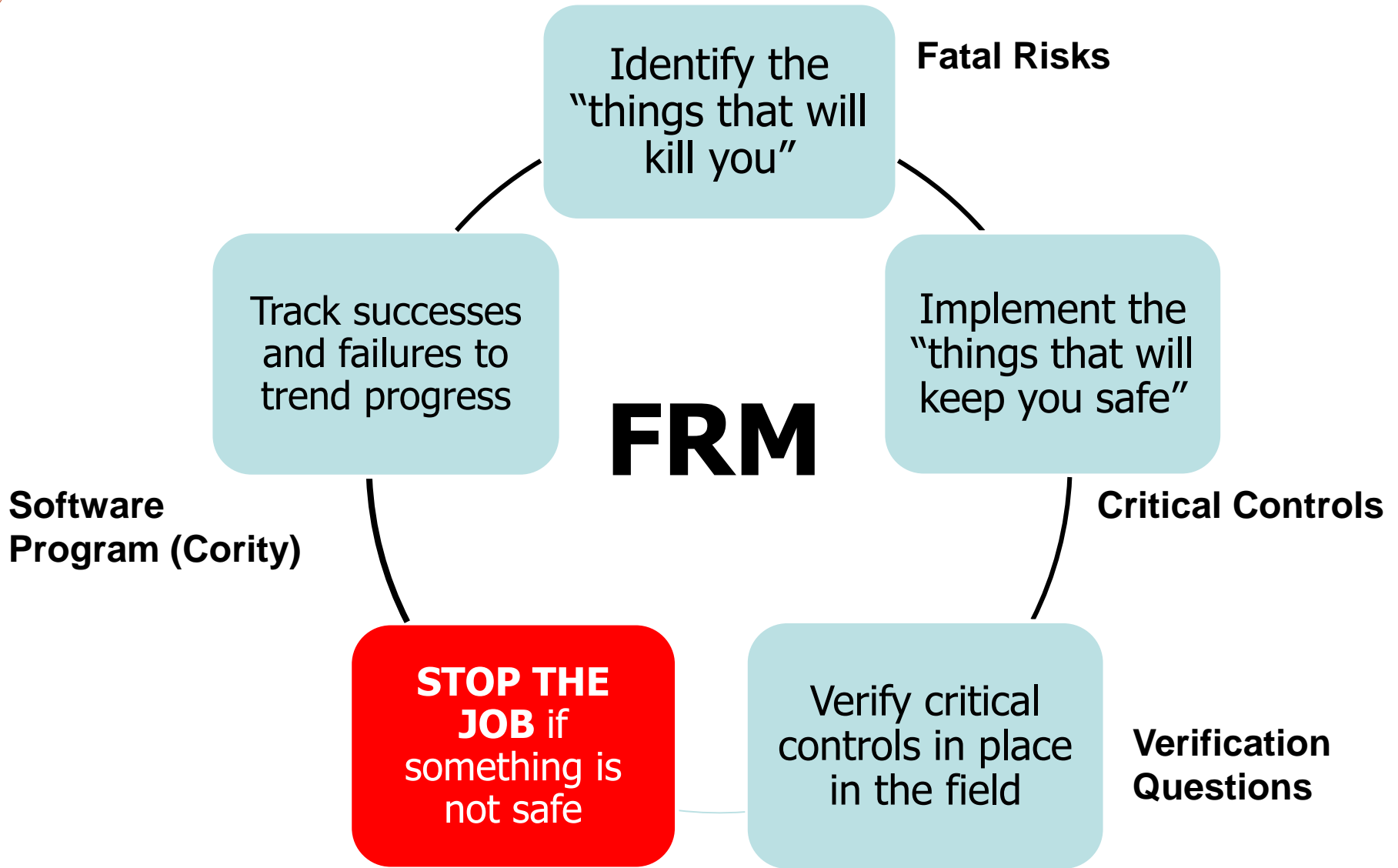
Vehicle Collision or Rollover	166
Contact with Electricity	48
Uncontrolled Release of Energy	30
Fall from Heights	29
Falling Objects	28
Lifting Operations	20
Ground Failure	17
Entanglement and Crushing	16
Vehicle Impact on Person	14
Blasting	11
Exposure to Hazardous Substances	7
Contact with Molten Material	6
Aircraft Transportation	4
Underground Inrush	3
Undetermined	3
Rail Collision	3
Drowning	2
Underground Rock Fall	2
Fire	1
Confined Space	1
Rail Impact on Person	1
Underground Hazardous Atmosphere	1
Personnel Hoisting	1
Grand Total	414

1/1/2010 – 12/21/2017, counts from IMS including all active and divested sites.

What is the next step?

1. FRM is the next step in the Fatality Prevention Program
2. It builds on the core elements presented in Fatality Prevention Training
3. Focused on improving communication of fatal risks and their prevention
4. It consists of several tools to be used in the field.

What is FRM



Fatal Risk Icons

Present at all sites



Vehicle Collision or Rollover



Vehicle Impact on Person



Fall from Heights



Entanglement and Crushing



Uncontrolled Release of Energy



Lifting Operations



Fire



Contact with Electricity



Falling Objects



Exposure to Hazardous Substances

Present at many sites



Confined Space



Blasting



Drowning



Ground Failure



Rail Collision



Rail Impact on Person

Present at few sites



Underground Rock Fall



Underground Hazardous Atmosphere



Underground Inrush



Personnel Hoisting



Contact with Molten Material



Aircraft Operation

What Should We Focus On in 2018?

2017 HEHI Fatal Risks

-10 Vehicle Collision or Rollover



-2 Falling Objects



-2 Uncontrolled Release of Energy



-1 Contact with Electricity



-1 Blasting



-1 Vehicle Impact on Person



Owned and Led By Operations



Management

- Am I identifying and communicating the Fatal Risks for my site?
- Have I ensured the policies, procedures and training are in place to support the Critical Controls?
- Am I verifying these in the field?



Line Supervisors

- Am I identifying and discussing Fatal Risks with my operators?
- Am I verifying that Critical Controls are being used consistently and effectively by my operators?



Operators

- Am I aware of the Fatal Risks?
- Am I implementing the Critical Controls?
- Am I stopping work if something is missing?

Multi-Tiered Verifications

Fatal Risk



Vehicle Collision or Rollover

Critical Controls

- Access Control
- Fit for Work and Fatigue Management
- Operator Competency
- Positive Communication System
- Road Design and Maintenance
- Segregation
- Signage and Demarcation

If these people could tell us something...



Antonio Jesús Ruiz Martín

Atlantic Copper - 4/3/2017
Fatally injured after being struck by a Kress hauler.

Fatal Risk:
Vehicle Impact on Person



Frank Axel Cohen Ruiz

Cerro Verde - 2/24/2017
Fatally injured when a ground failure event on a double bench caused a large boulder to strike the operator cabin of a shovel.

Fatal Risk:
Ground Failure



Peter Winston Arratea Ale

Cerro Verde - 2/23/2017
Fatally injured after becoming entangled in the tail pulley of a moving feed belt.

Fatal Risk:
Entanglement & Crushing



Nelson Pondayar

PTFI - 10/17/2016
Dozer slid while operating on a bench and rolled over causing fatal injuries.

Fatal Risk:
Vehicle Collision or Rollover

What would they say?



Lukas Rapi

PTFI - 8/30/2016

Fatally injured when struck by a loader moving a shipping container.

Fatal Risk:

Vehicle Impact on Person



Benyamin Pasang

PTFI - 8/7/2016

Received fatal injuries when the cable tray he was working on collapsed causing a 7M fall.

Fatal Risk:

Fall from Heights



Patricio Bobadilla Gallardo

El Abra - 8/30/2016

Suffered fatal injuries when a moving train struck a parked acid tanker car he was unloading.

Fatal Risk:

Rail Collision



Bryan Ortiz

Safford - 4/9/2016

Extended contact with stray electrical current outside the tankhouse caused fatal injuries.

Fatal Risk:

Contact with Electricity

Remember

This system focuses on two things.

1. What can kill you?
2. What will prevent you from being killed?

