

# 2023 Fall Conference

Robert S. (Rory) Johnston, PE, GE, BCEE

# Case History: Site Safety is the Highest Priority

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Managing Principal-Langan

# Introduction-Some Questions.....

- Your firm's safety program?
- Your Total Recordable Incident Rate (TRIR)-looking in the rear view mirror?
- More environmental than geotechnical?
- Health and Safety Plans/Evaluations for all field work?
- Definition of field work?
- Does it deal with changing site conditions?
- Documentation of observations, near misses, tailgates Job Safety Analyses (JSAs)
- Is it auditable? How often do you hold audits?
- Is it generative?
- Is it supported top down? And bottom up?
- What is the goal/metrics? Tied to compensation? Safety culture?

# ENR Article July 9, 2021

## Drill Rig Accident Kills Engineering Manager, Injures Operator in Philadelphia

Drill rig accident during unloading at a Philadelphia pedestrian bridge project July 6 killed Langan site inspector Kirankumar Mistry, 56. Philadelphia officials and engineering firm Langan have confirmed that a company project manager and geotechnical engineer died July 6 in a nighttime drill rig accident while he was on site to inspect foundation work for a pedestrian bridge project.

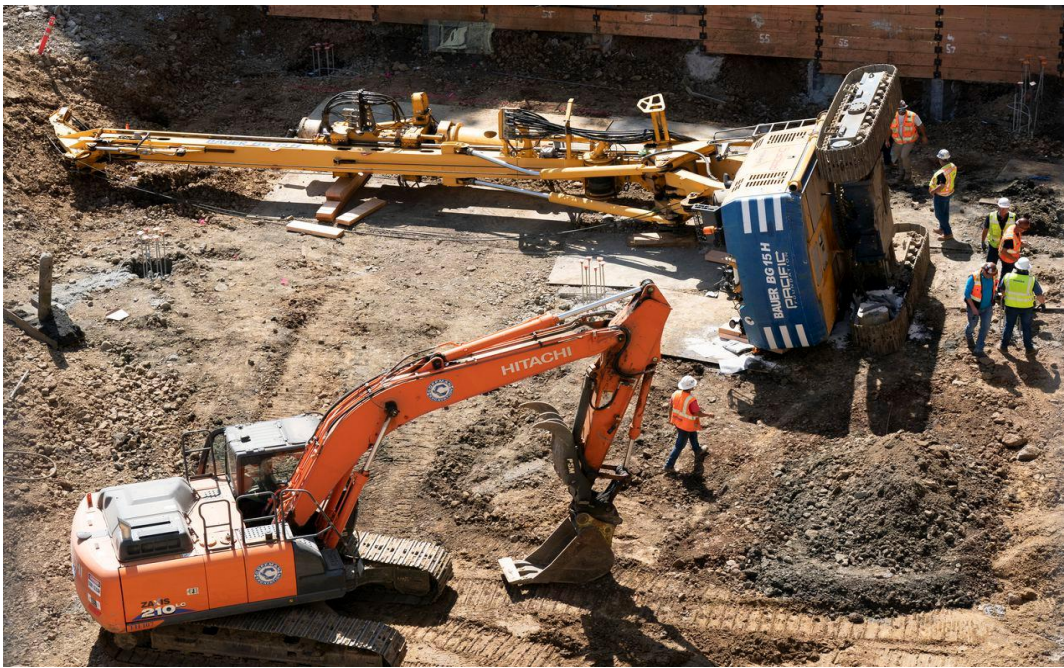
In a July 9 statement, Langan CEO David T. Gockel identified the dead man as Kirankumar Mistry, a 56-year-old senior engineer and 23-year firm veteran. Mistry, of Marlton, NJ, was crushed and the drilling rig operator injured when the rig owned by Cook Drilling Corp., Trevose, Pa., fell over as it was unloading material from a tractor-trailer at 8:30 PM, city fire department officials said. Efforts to extricate Mistry and the operator took 15 minutes. He later died at Penn Presbyterian Medical Center

**The drill rig operator was unloading pipe for the casing when the catastrophe occurred.**









# FIELD EMPLOYEES AND THE LINE OF FIRE

# The Paradox



- To excel in geoengineering observation=Proximity!
  - Construction equipment
  - Uneven ground
  - Falling objects
  - Energized equipment/lines
- What is the Line of Fire?
- How to identify?
- How to stay out of it?
- Teamwork & Observations

# Line of Fire Awareness/Training

- Training to Avoid Being Injured by:
  - Moving objects
  - Releasing energy
  - Working underneath a lifted load
  - Working next to unstable materials
  - Working next to objects under tension
  - Placing hands in moving/rotating equipment
- Avoidance By:
  - Last Minute Risk Assessment (LMRA)
  - Positioning away from moving objects, vehicles, pressure releases, and dropped objects
  - Provide and obey barriers and exclusion zones
- BUT TRAINING IS NOT ENOUGH.....

## What is the Line of Fire?

### Construction Industry

The line of fire is being in harm's way. Line of fire injuries occur when the path of a moving object and an individual's body intersect.



#### Caught-in/Between

##### Examples include:

Moving gears  
Moving equipment and fixed object  
Shifting material



#### Dropped Loads/Objects

##### Examples include:

Dropped loads  
Dropped tools  
Falling objects



#### Struck-by

##### Examples include:

Release of energy  
Moving equipment  
Rolling objects

**Don't Put Yourself in Harm's Way!**

[www.safetytalkideas.com](http://www.safetytalkideas.com)





“relating to or capable of production or reproduction”

## GENERATIVE SAFETY CULTURE

# Langan's Health & Safety Vision Statement 2021



## President / CEO – David T. Gockel

Langan is committed to fostering a generative health and safety (H&S) culture that cares for and benefits our employees, clients, contractors, families, and communities. We strive to be industry leaders in the advancement of incident and injury prevention – Langan's goal is to be SAFE (Stay Accident Free Everyday!).

# Executive Committee Health & Safety Commitment 2021

Langan's Executive Committee is dedicated to providing a healthy and safe work environment to Langan employees. This dedication is demonstrated through the Executive Committee's leadership and commitment to develop and improve the Firm's Health and Safety Program and culture.

We convey our commitment to creating a healthy and safe work environment through our corporate health and safety message: ***Langan's goal is to be SAFE (Stay Accident Free Everyday!)***



Langan's Executive Committee Members Endorsement:

David Gockel

Rudy Frizzi

Bill Kraebel

Steve Ueland

Alan Poeppel

Richard Burrow

George Leventis

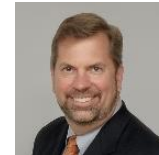
Ron Fuerst

Greg Eiko

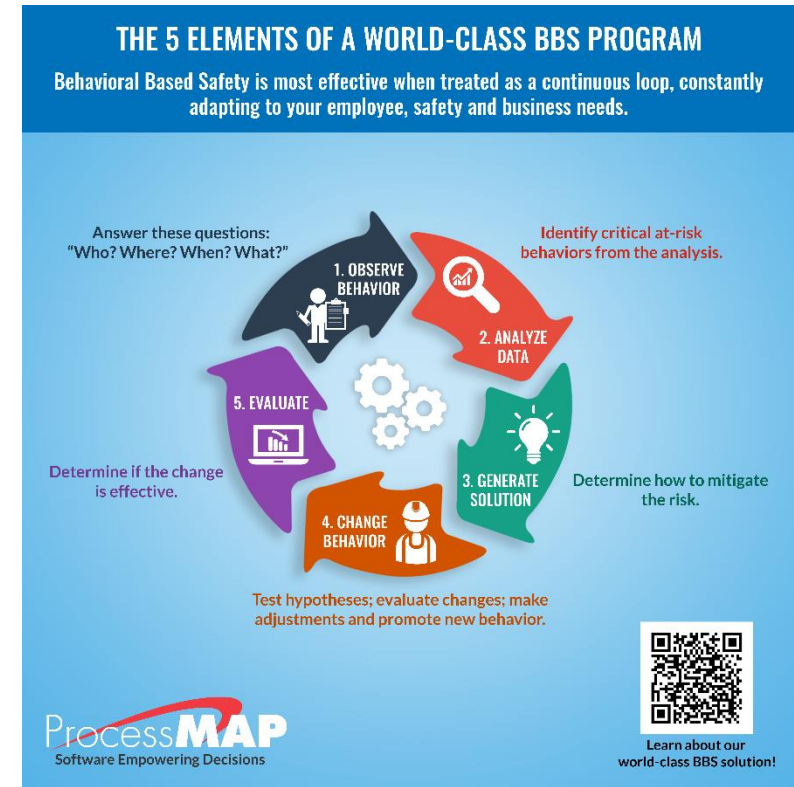
Rory Johnston

Lori Simpson

Ryan Linthicum



# BEHAVIOR BASED SAFETY PROGRAM & LAST MINUTE RISK ASSESSMENTS (LMRA)





# TAKE 5! *Follow these 5 STEPS...*



S – Stop, what has changed?

T – Think about the task

E – Evaluate potential hazards

P – Plan safe approach

S – Start task / Stop & regroup

# STOP WORK AUTHORITY



## Stop Work Authority

*Stop any work or behavior you deem unsafe to yourself or your coworkers.*



*You will **never** be penalized for stopping unsafe work or speaking up about hazards and injuries.*

# Stop Work Authority

- Unsafe Condition Observed
- Stop Work/Langan Service
- Resolve Unsafe Condition
- Notify Senior Associate/Stockholder
- Restart Work/Langan Service

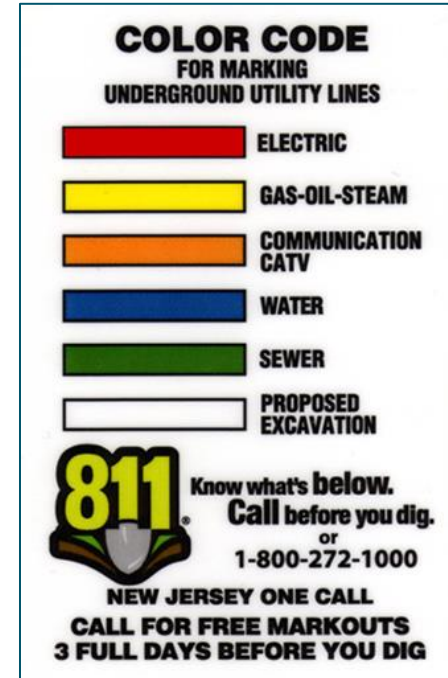


# ROOT CAUSE INVESTIGATIONS/LESSONS LEARNED



# Procedures - Underground Utility Clearance Policy

1. One-Call System Mark-Out
2. Private Utility Mark-Out (\*)
  - Private Properties
  - Areas not covered by One-Call
3. Site Utility Plan Review
4. Site Visit (Inspection)
  - Prior to or day of fieldwork
5. Soft Digging(\*)
  - First 5 feet of depth



# Underground Utility Clearance Policy

- Training Completed
- Compliance Date: September 1<sup>st</sup>
- Feedback/Comments
  - Positive Feedback
  - Comments/Suggestions Provided
  - Review/Revise (4<sup>th</sup> Quarter)





## WHERE ARE OUR FIELD EMPLOYEES?

# Tracking Dashboard - Safe Work Certificate (SWC) Program

- Track SWC Progress
- Searchable by:
  - ✓ Project Number
  - ✓ Project Manager
  - ✓ Shareholder
  - ✓ Principal In Charge
  - ✓ Client
- SWC Status/Updates
- Field/Employee Locations (Map)
- Sign-In / Sign-Out Tracking





# Implementation - Safe Work Certificate

- Three Phase Implementation
  - Office Location (Geographical)
- Implementation Timeline (Tentative)
  - Start: October 2023
  - Complete: December 2023
- Phase Implementation Schedule
  - Office Notification (Email)
  - Training (LMS)
  - SWC Brown Bag (Q&A)





# GOAL ZERO!

**LANGAN'S GOAL IS  
TO BE SAFE!**



***Stay Accident Free Everyday!***