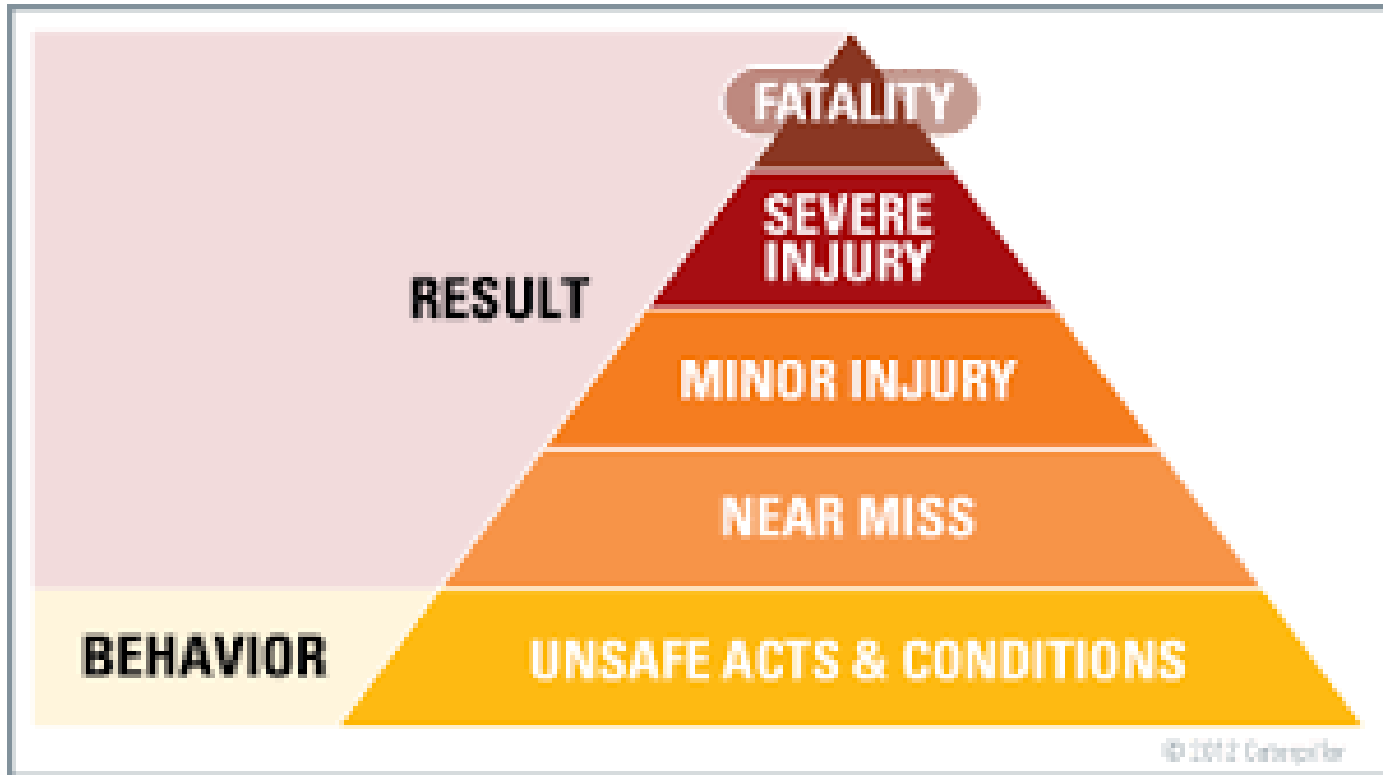


# Duke Energy Supply Chain's Keys to Life Safety

- Agenda

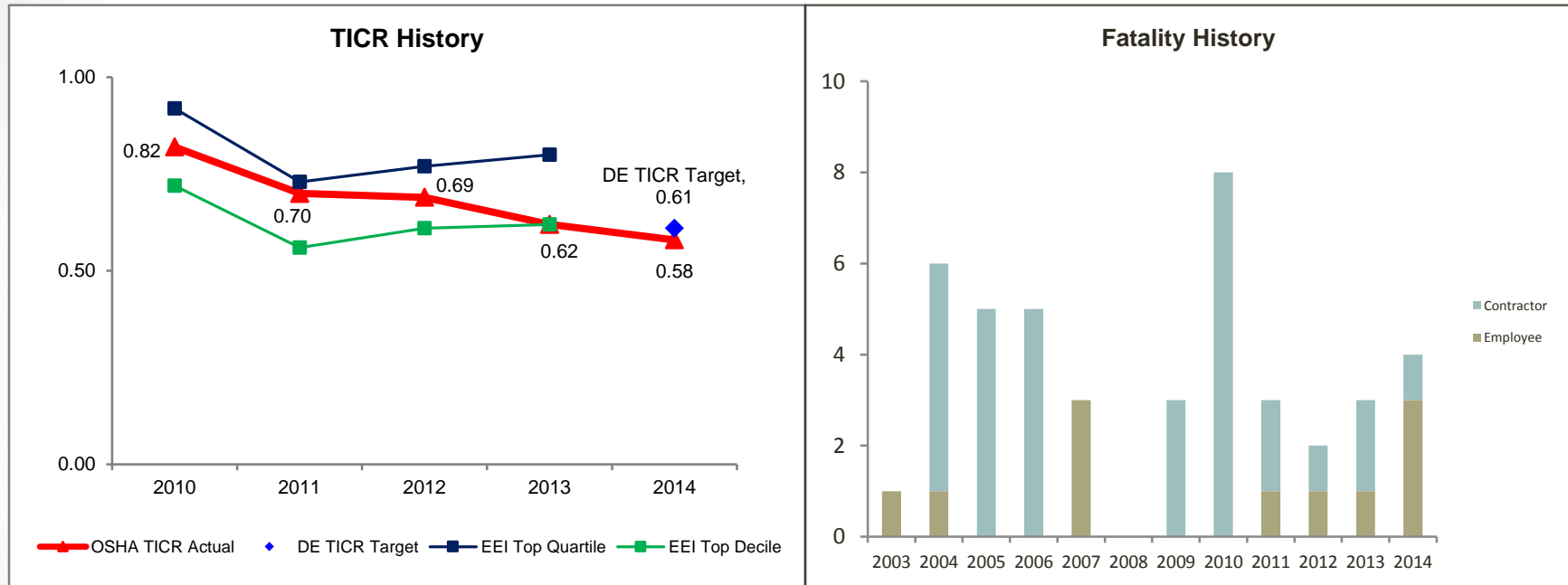
- Traditional Safety Pyramid
- Current TCR & Fatality Observations
- Keys to Life Process
- Keys to Life
- Keys to Life Control Plan
- Keys to Life Project Charter
- 2015 Safety Results as compared to 2014 Safety Results
- 2015 Safety Key Attributes

# Traditional Safety Pyramid



Heinrich's Safety Pyramid Model

# Duke Energy Enterprise Current TICR & Fatality Observations



- Fatalities have occurred in 11 of 12 years. No apparent downward trend.
- There appears to be no correlation between injury reduction and fatality reduction.
- Other industries are experiencing similar results.
- Identify Sub-set of Hazards (**Keys to Life**) that cause severe injuries & fatalities

# Keys To Life Process

## Hazard Identification

- Developed **Keys to Life** for Supply Chain. The Keys to Life Identify hazards of high risk activities known to cause fatalities and define behaviors necessary to prevent fatalities.
- Communicated to employees

## Hazard Evaluation

- Hazards of Keys to Life assessed in workshops using risk assessment tool.
- Teams evaluated effectiveness of current controls.
- Teams identified additional controls (**Control Plan**) necessary to lower risk.
- Recommendations for additional controls presented to management.

## Hazard Control

- Management reviewed and approved additional controls (**Control Plan**)
- Control plans developed to assign responsibility and due dates.
- Supply Chain implemented **Control Plan** actions

# Supply Chain Keys-To-Life (*Red text represents 2015 Control Plan Focus area*)

- **Driving safely**  
Wear seat belts, follow posted speed limits, and comply with regulations. Avoid distractions that would remove your focus from the road.
- **Pedestrian safety**  
Cross at crosswalks and obey crossing signals. Look for oncoming vehicles and cyclists in all directions.
- **Slips, trips and falls**  
Recognize and avoid potential slip/trip/fall hazards, and take appropriate action to have the situation mitigated. On stairs, hold handrails where available.
- **Emergency evacuation**  
Be familiar with the emergency evacuation procedures for your work location. If you are required to evacuate, immediately exit the area per emergency evacuation procedures and escort any visitors with you.
- **Heavy equipment/industrial equipment**  
Operators will secure loads, back down ramps, utilize spotters when warranted, and travel with forks safely 6 inches above the ground. Operators will be aware of surroundings, eliminate distractions such as cellphones and make others aware of their presence by sounding horn before going through doorways or around blind corners.
- **Falling objects**  
Implement prevention measures where there is a potential for dropped objects. Measures shall include, at a minimum, proper barriers, exclusion zones and securing of tools and materials.
- **Fall from elevation**  
Utilize fall protection equipment when required for work at heights greater than 4 feet. Inspect equipment before use and use it properly. Maintain three points of contact when changing elevation.
- **Business unit support**  
Employees and contractors with field responsibilities will follow the Keys to Life for the specific business units that they support.

# Supply Chain Keys to Life Control Plan

Keys to Life	Activity Analyzed	Planned Actions	Responsible Person	Due Date	Risk Score Before Controls	Risk Score w/ New Controls
Driving Safely	Risk of employees driving on company business.	<p>Adopt the corporate Driving Safety Program (HS023 in the H&amp;S Manual). Actions to include:</p> <p>Communicate the expectations contained in these sections to all employees who drive on company business:</p> <ul style="list-style-type: none"> <li>• Driver Qualifications/ Expectations</li> <li>• Operational Practices</li> <li>• Incident Reporting</li> </ul> <p>Identify and schedule employees for driver training. Use employee job classifications and the recommended training thresholds below as a guide to determine the appropriate level of training:</p> <ul style="list-style-type: none"> <li>• All domestic drivers: Complete CBT COT148C.</li> <li>• Occasional drivers (1,500 to 4000 miles/year): Classroom training (3 hours)</li> <li>• Frequent drivers (&gt;4000 miles/year) Classroom training and road course (1 day).</li> </ul>	Straw/ Lee/ Herzberg/ Chuber/ Teague/ McCulloch	09/30/2015	NA	NA

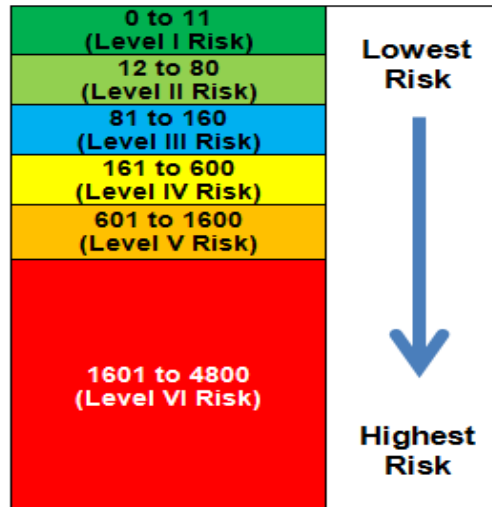
# Supply Chain Keys to Life Control Plan

Keys to Life	Activity Analyzed	Planned Actions	Responsible Person	Due Date	Risk Score Before Controls	Risk Score w/ New Controls
Heavy equipment/ industrial equipment	Fork lift operation - hazard of turning over a forklift; dropping a load; striking a pedestrian; striking building structures.	Complete a <b>Forklift Safety Continuous Improvement Project</b> with the goal of reviewing forklift operations and safe work practices across FH SC, Nuclear SC, and T&D SC. Provide recommendations to the Safety Steering Team and then implement approved recommendations.	Safety Steering Team and Business Process Excellence	6/30/2015	84	18
Heavy equipment/ industrial equipment	Loading /Unloading/ Movement of high risk commodities -- hydrazine; chemicals; compressed gases; high center of gravity loads.	Complete a <b>Hazardous Materials Safety Continuous Improvement Project</b> with the goal of reviewing safe work practices associated with handling hazardous materials across FH SC, Nuclear SC, and T&D SC. Provide recommendations to the Safety Steering Team and then implement approved recommendations.	Safety Steering Team and Business Process Excellence	6/30/2015	180	21

# Supply Chain Keys to Life Control Plan

Keys to Life	Activity Analyzed	Planned Actions	Responsible Person	Due Date	Risk Score Before Controls	Risk Score w/ New Controls
Falling objects	Falling objects -- product falling off the racks; products falling off trucks; falling off forks; push product off the back of the rack.	Supply Chain warehouse operations mgmt. establish a leadership cross-group inspection process, and schedule periodic inspections/observations of major stocking facilities. Power delivery distribution centers and Tier 1 facilities will be assessed. Main warehouse facilities on site in F/H and Nuclear will be assessed. Assessment findings to be documented by SC SST and communicated across SC.	Straw/Lee/Herzberg/Teague	6/30/2015	120	28

Risk Level Matrix





# Keys to Life Control Plan Project Charter

Initiative Category	Business Unit
Continuous Improvement – Safety	Supply Chain
Project Name	
<b>Driving Safely (KTL Control Plan)</b>	
Problem Statement	
Driving motor vehicles (personal, rental, or company vehicle) is considered a high risk area for Supply Chain employees driving on company business.	
Accountabilities & Key Deliverables	
<p>1) Adopt the corporate Driving Safety Program (HS023 in the H&amp;S Manual) &amp; communicate these expectations to all employees who drive on company business:</p> <ul style="list-style-type: none"> <li>a) Driver qualifications/expectations</li> <li>b) Operational Practices</li> <li>c) Incident Reporting</li> </ul> <p>2) Identify and schedule employees for driver training. Use job classifications &amp; the recommended thresholds below as a guide for appropriate training level:</p> <ul style="list-style-type: none"> <li>a) All domestic drivers – My Training CBT# COT148C</li> <li>b) Occasional Drivers (&gt;1,500 miles/year &amp; &lt;4,000 miles/year) - HS2124 (3 hour classroom)</li> <li>c) Frequent Drivers (&gt;4,000 miles/year) - HS2125 (classroom and practical – 1 day)</li> </ul> <p>3) Establish parking expectations for Supply Chain Employees</p>	
Expected Benefits	
<p>1) Raised awareness of risk associated with driving motor vehicles in Supply Chain</p> <p>2) A set expectations for Supply Chain when driving</p> <p>3) Reduced number of driving related incidents on and off the job</p>	

Sponsors	Team Leader	Team Facilitator(s)
Mark Teague	Fred Walters	Lisa Modenbach
Team Members		
<p><i>FH Supply Chain – Glenn Moore</i>  <i>Nuclear Supply Chain – Chuck Ballard</i>  <i>T&amp;D Supply Chain – Dale Wilbanks</i>  <i>Major Projects Supply Chain – Brooks Strickler</i>  <i>Enterprise Supply Chain – Brad Bishop</i>  <i>Strategy and AP Supply Chain – Fred Walters</i>  <i>DEI /DE Renewables – Ken Rice</i>  <i>DEI /DE Renewables – Raphael Salazar</i></p>		
Report Out Audience		
Supply Chain Safety Steering Team Supply Chain Oversight/Operating Committee		
Project Scope		
<p>All Supply Chain Groups (Staff Aug and employees)            (Excludes turn-key workers)</p> <p><i>Note that a listing of all current Supply Chain employees is contained on an Excel Spreadsheet in the SC SST Share Point in the KTL Project Charter folder and can be used for identifying required training requirements for each SC employee. Contact Corporate Training for scheduling Frequent and Occasional Driver training.</i></p>		
Project Timing		
<p>3/13/2015 - Identify Occasional and Frequent drivers            3/31/2015 – All domestic drivers complete CBT# COT148C            9/30/2015 – Occasional drivers complete HS2124            9/30/2015 – Frequent drivers complete HS2125</p>		

# 2015 Safety Results and 2014 Safety Results

2014 SC Injuries	
<u>Classification</u>	<u>Number</u>
For Record Only	2
Non-Recordables	1
First Aids	15
Recordables	6
Restricted Duty	4
<b>Total</b>	<b>28</b>

2015 SC Injuries	
<u>Classification</u>	<u>Number</u>
For Record Only	2
Non-Recordables	0
First Aids	12
Recordables	0
Restricted Duty	0
<b>Total</b>	<b>14</b>

2014 SC Vehicle Incidents	
<u>Classification</u>	<u>Number</u>
Preventable	18
Non-Preventable	24
<b>Total</b>	<b>42</b>

2015 SC Vehicle Incidents	
<u>Classification</u>	<u>Number</u>
Preventable	1
Non-Preventable	13
<b>Total</b>	<b>14</b>

# 2015 Safety Key Attributes

Supply Chain Safety Leadership Alignment Summit (January, 2015) communicating Keys to Life Control Plans and broad engagement

Only one Safety Steering Team for all of Supply Chain in 2014; in 2015 each Supply Chain sub-group created their specific safety steering team with ties to the broader Supply Chain Safety Steering Team

**Engaged supervision and employees** in each Keys to Life Control Plan project team

Increased safety communication bi-weekly to all Supply Chain employees and staff augmentation contractors

Developed a Safety Quarterly newsletter with a Managing Director providing an opening article each quarter along with specific and timely safety information

Thorough investigation of all safety incidents with a report back to the Supply Chain management staff [(CPO and his direct reports (Managing Directors))]

Continued with quarterly office safety meetings