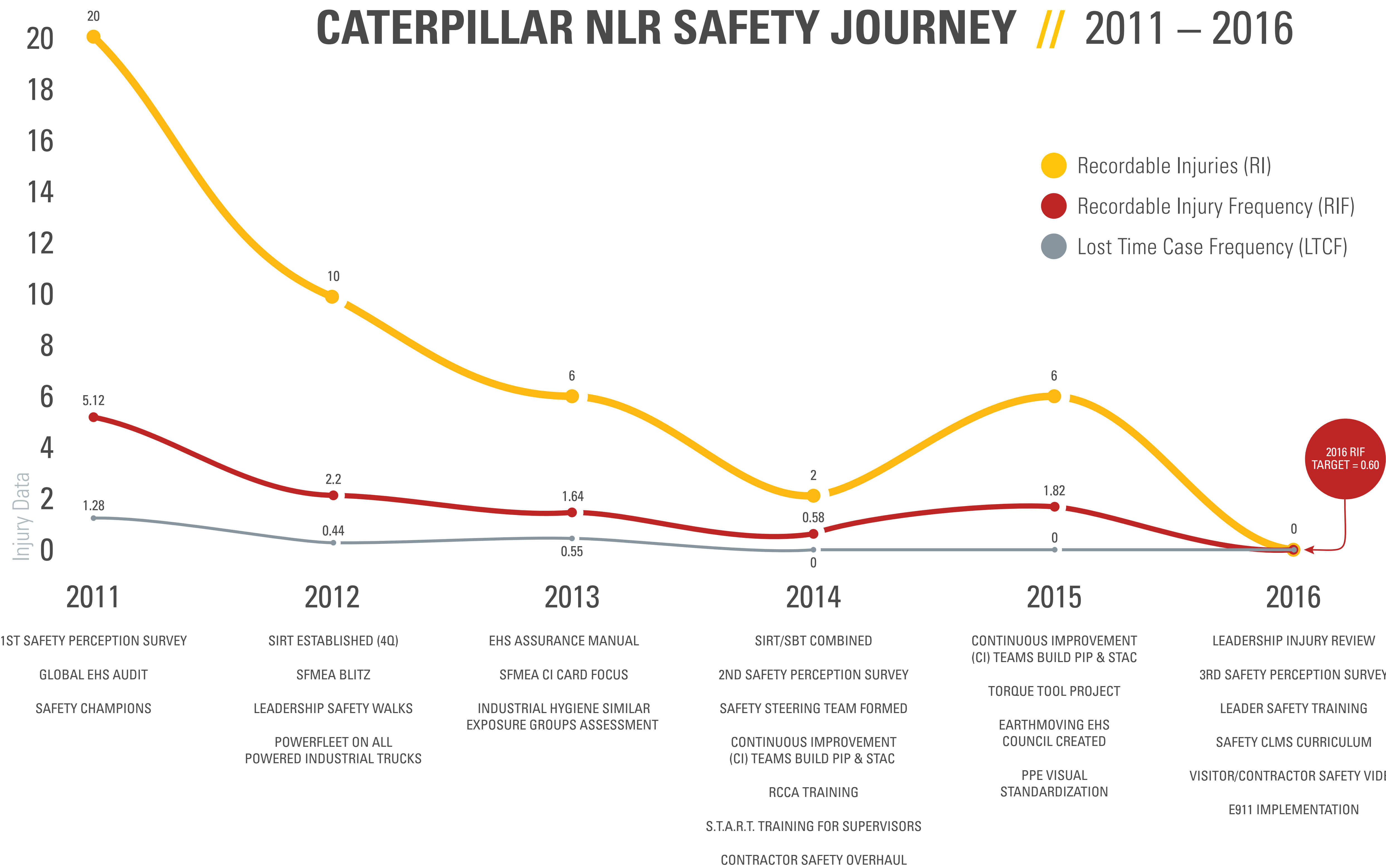


CATERPILLAR NLR SAFETY JOURNEY // 2011 – 2016



Details about annual initiatives



2010

PRODUCTION BEGAN (JUNE)

MONTHLY INJURY REVIEW Safety lagging indicator score card completed monthly. Results roll up to Caterpillar vice-president.

2011

RI 20
RIF 5.12
LTCF 1.28

1ST SAFETY PERCEPTION SURVEY The SPS captures perceptions about safety across three organizational levels – frontline employees, frontline supervisors and management – to identify gaps that could negatively impact safety performance. Data provides a baseline for an improvement strategy. Of 20 cultural indicators, the production workforce indicated 14 required immediate attention and the remaining 6 needed improvements.

GLOBAL EHS AUDIT Focused on compliance on environmental safety regulations and corporate standards. 38 findings discovered and resolved.

SAFETY CHAMPIONS First step in involving employees in safety management. First safety compliance-focused hourly employees established for assembly operations.

2012

RI ▼10
RIF ▼2.2
LTCF ▼0.44

SIRT ESTABLISHED (4Q) Safety Issue Resolution Teams (SIRT) initiated as an outcome of the Safety Perception Survey. Representatives from EHS, Engineering, Quality, Logistics and Operations (Section Managers, Team Leads, and hourly Safety Champions) formed teams for each value stream in the facility. Teams meet weekly to discuss injuries, near misses and CI cards generated by employees to determine root causes and implement response measures. A report-out is conducted weekly with all teams and the facility leadership team to reach consensus on the response before issues are closed. To date, more than 1000 issues have been addressed with the SIRT process.

SFMEA BLITZ Conducted Safety Failure Modes & Effects Analyses (SFMEAs) for all jobs in the facility. The team was led by a Global EHS Leadership & Technical Development Program (LTDP) employee and included four manufacturing engineering interns, three welders, a quality inspector and an assembler who were recognized for their safety focus. 947 jobs were evaluated.

LEADERSHIP SAFETY WALKS Supervisors, operations manager and general manager review each value stream weekly, looking at CI cards and discussing leading indicator activities with employees.

POWERFLEET ON ALL POWERED INDUSTRIAL TRUCKS Software allowing only authorized users to access and drive powered industrial trucks, requires the operator to complete a daily checklist, logs impact/collisions and shuts down the truck if a large impact is detected.

2013

RI ▼6
RIF ▼1.64
LTCF ▼0.55

EHS ASSURANCE MANUAL In March 2013 the NLR EHS department conducted a self-assessment to determine compliance with Caterpillar’s EHS Assurance Manual, the “playbook” for managing environmental, health and safety programs. Of the 126 applicable items, only 74 (59%) were compliant. The primary focus for the year was on developing and implementing the management system. All areas previously not compliant with the EHS Assurance Manual were closed by the end of January 2014.

SFMEA CI CONTINUOUS IMPROVEMENT CARD FOCUS For any “high hazard” jobs identified through the Blitz, a Safety Continuous Improvement Card was assigned to the Manufacturing Engineer to reduce the risk to the operator. A total of 15 high risk jobs were identified and corrected through the CI process.

INDUSTRIAL HYGIENE SIMILAR EXPOSURE GROUPS ASSESSMENT Personal sampling devices were used to survey various work groups across the facility for workplace hazard exposures.

2014

RI ▼2
RIF ▼0.58
LTCF ▼0

SIRT/SBT COMBINED Safety Issue Resolution Teams combined with the respective Quality, Velocity, and Cost teams to create one Small Business Team for each of the facility’s eight value streams. Gives each Section Manager an organized venue to discuss their area issues with a multidisciplinary team, and set project completion priorities and goals.

2ND SAFETY PERCEPTION SURVEY Repeat survey conducted to measure progress since 2011 assessment and identify remaining areas of opportunity. Results showed 82% improvement in the number of areas requiring immediate attention.

SAFETY STEERING TEAM FORMED A multi-disciplined team of hourly and management employees established to select safety culture improvement projects and commission continuous improvement teams.

CONTINUOUS IMPROVEMENT (CI) TEAMS BUILD PIP & STAC Teams of front-line employees representing multiple areas of the business tasked with developing, training, piloting and guiding the implementation of new or improved safety processes. CI Team 1 built “PIP” (Positive Interaction Process), a process for acknowledging and recognizing positive safety behaviors. CI Team 2 built “STAC” (Stop Think Act Communicate), a risk mitigation process.

RCCA TRAINING: RCCA (Root Cause Corrective Action) training for all salaried personnel and hourly team leads.

S.T.A.R.T. TRAINING FOR SUPERVISORS S.T.A.R.T. (Supervisor Training in Accountability and Recognition Techniques) focuses on setting clear expectations, recognizing positive behaviors and holding quality safety conversations.

CONTRACTOR SAFETY OVERHAUL Comprehensive pre-qualification and onsite training and management program for all contractors performing work at the facility.

2015

RI ▲6
RIF ▲1.82
LTCF 0

CI TEAMS IMPLEMENT PIP & STAC Facility-wide implementation of CI Team processes. All employees (production and management) are required to perform two PIPs and 1 STAC each month. Metrics are tracked and part of every employee’s performance goals.

TORQUE TOOL PROJECT Reduced ergonomic risk to operators by limiting manual torque forces and replacing manual torques with powered tools. Assessed all final torque tools based on frequency, operator position, surrounding hazards, and force.

EARTHMOVING EHS COUNCIL CREATED A group of EHS professionals from across Caterpillar’s Earthmoving Division. Provides a forum for sharing best practices, assuring consistency in reporting and driving employee involvement in safety.

PPE VISUAL STANDARDIZATION Created and posted visual models depicting PPE requirements for each of the facility’s 32 job types.

LEADERSHIP INJURY REVIEW Leadership panel meets monthly to review every injury from previous month. Serves as a “Quality Gate” for injury RCCA and final solution actions.

3RD SAFETY PERCEPTION SURVEY Composite scores for the Hourly, Supervisor, and Manager groups at the North Little Rock facility all exceed the averages in the multi-industry database. Cultural indicators directly influenced by PIP and STAC (Recognition; Hazard Correction; Safety Climate) show further improvement.

LEADER SAFETY TRAINING Supervisors empowered to deliver non-regulatory required safety training, creating a “team” approach to safety whereby operations staff join EHS in facilitating training.

SAFETY CLMS CURRICULUM Sixteen online safety courses assigned to Earthmoving Division non-production personnel who have the potential to be in a hazardous workplace.

VISITOR/CONTRACTOR SAFETY VIDEO Each visitor to the facility watches a video to understand safety policies, emergency response information, PPE, etc.

E911 IMPLEMENTATION Integrates facility phones with 911 system. Calls to 911 by any desk phone automatically issue a variety of electronic alerts to security, EHS personnel, department heads and Emergency Response Team. 911 dispatcher receives facility map, including location of the caller.