



## **Our Journey to become the safest steel foundry in the world**

A behavioral approach to safety

Company: Corporacion POK

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# 1 Introduction

The following paper enunciates in an informal and narrative way the journey to safety of the last four years of Corporacion POK. We intend to promote a safety culture and not just comply with regulations, reports and numbers. Every number in our statistics is a teammate, a person, a mother, father, daughter, son, friend, you name it that got hurt. It is our main concern to ensure the safety of all our team, we do not want to produce just steel, we want produce steel the safest way possible.

# 2 Our facts and numbers

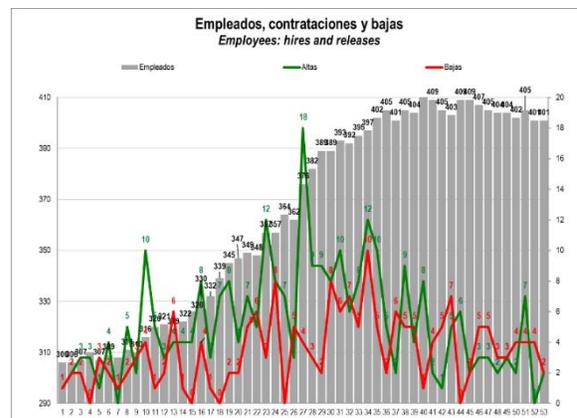
Back in 2016 one of the main objectives of POK was to make sure we lowered our DART rate to or below 6.0, these were the numbers:

	2013	2014	2015	2016
Total number of accidents	172	59	72	35
Total number of DART cases (lost time accidents)	43	29	54	22
Total man-hours worked	965,327.02	872,538.26	941,281.58	755,560.29
<b>Total rate per DART</b>	<b>8.9</b>	<b>6.6</b>	<b>11.5</b>	<b>5.8</b>

It was clear that the team had decided and began working on becoming safer, nevertheless 22 lost time accidents was too many people getting injured each year. Since 2017 Safety was set as POK’s top priority objective.

The year of 2016 represented a huge challenge, market conditions impacted the amount to workforce needed. Although POK had decided not to lay off any teammate, our company suffered a massive loss of its work force near 25%. This fact became relevant on the ramp up of the market at 2017.

As it is shown in the following graph, hires and terms during 2017 were highly volatile, ramping up of 100+ teammates in a short period of time and sustaining the number was not only a challenge for HR, but Safety too.



The black bar represents the total teammate count at the end of each week. Green are hires and red are terminations, also by week. Accumulated turnover rate for 2017 was 54.5%.

The following table expands information about how our teammate count behaved since 2016 thru 2019.

	2016	2017	2018	2019
Teammate count at the beginning of year	346	306	401	446
Teammate count at the end of year	306	401	446	446
Accumulated turnover rate	74.78%	54.51%	38.32	32.79%
Total hires	107	277	222	151
Total terminations	139	181	177	151

As stated above this need of rapidly growth in our teammate count has a direct impact on safety. On the following table are the number of total recordables and DART rate results of 2017 – 2019.

	2017	2018	2019
Total number of Recordable accidents	80	54	55
Total number of DART cases (lost time accidents)	28	35	22
Total man-hours worked	976,404.50	1,134,418.82	1,121,525.42
<b>Total rate per DART</b>	<b>5.7</b>	<b>6.2</b>	<b>3.9</b>

Total man-hours grew significantly and with an accelerated pace. New hires were not familiar to the industry nor the job. Nevertheless, the strategy was set to focus on behaviors, unsafe acts, training and increasing the amount of consciousness on our teammates.

At the beginning of 2018, POK’s leadership decided that it was the right time to set a new mission statement and a set of guiding principles (values) that will help our team achieve their goal.

*“Provide specialized turnkey casting solutions in a safe work environment and with a very strong focus on customer service.”*

POK’s new mission statement embedded safety. Also, a key element in our guiding principal was Safety Awareness, as stated below.

*“Safety is important. We believe that zero accidents is possible. We comply with all our safety and environmental obligations. We remain aware and take care of ourselves, our colleagues and visitors actively.”*

Also, a major event occurred at the end of that year. On November 29<sup>th</sup> Nucor announced the acquisition of POK as part of their plans of expansion. Nucor did not hesitate and quickly set the expectation of safety being their top priority *“Nothing is more important than safety. Absolutely nothing”*, stated former Nucor’s CEO John Ferriola.

### 3 Our journey

POK's journey to safety started 10+ years ago but started to become seriously relevant at the end of 2015. What is outstanding is the progress that can be made focusing on key elements of behaviors and the power of a culture based on safety.

We began with a fundamental and basic principle: measuring. At first, measures were limited to keeping track of lost time accidents and setting a goal. Eventually we began to increase the amount of information in our data bases. We concluded that 85 – 95% of accidents are caused by unsafe acts. Unsafe conditions rarely caused accidents.

Being unsafe is a state of the mind and thus gets reflected in our behaviors. We realized that making progress and fixing unsafe conditions was critically important but, was not the answer to our problem.

First steps taken were setting a practice of safety activities such as stretches at the beginning of the work shift and 5-minute safety talks at least once a week. We developed a routine of exercises and a manual with more than 50 safety talks and topics. We kept track of implementation with pictures sent via WhatsApp every day and recorded them in an excel spreadsheet and encouraged all teammates to participate by having them give the talk, Breath analysis for alcohol, and random drug testing were implemented. We set the expectation for a 0-tolerance policy. Failing either of these tests prohibits the employee from entering the premises.

We also developed a series of brochures with safety information for teammates and visitors. We need to make sure everyone knew that safety was important, the most important thing.

The year of 2017 as stated before represented a huge challenge. As a team we had managed to keep on target our DART rate for most of the first part of that year. Our focus was on:

- Making sure progress was made on compliance with safety regulations,
- Deep dive investigation of lost days accidents,
- Tracking of corrective actions,
- Communicating periodically to all teammates about the accidents that occurred and how they could have been prevented,
- Audits (internal and external),
- Installation of safety committee and awareness campaigns.

During that year we received an audit from a customer that set the bar in a higher level and we knew that we had to speed things up.

Unfortunately, we did not meet 2017's safety objective, high turnover plus high demand on quick production combined and resulted in 80 recordable accidents of which 28 were lost time resulting in 5.7 DART rate. Our silver lining was that our rate and absolute

number of lost day accidents did not grow at the same proportion as our teammate count did. We knew that we were in the right track and understood, that this was an endurance race and not a speed race.

As mentioned, we embedded safety in our Mission statement. We believe in it as a must in our day to day activities. We made sure to transmit and communicate that we believe that 0 accidents are possible and our commitment to be safe and provide a safe environment for all at POK. Additional to that a large amount of safety training was imparted. We needed to make our culture move from thinking safety to living safety. More than a mindset, to be a lifestyle.

Also, although we decided not to formally implement a SafeStart® program, the behavioral concepts of the “four states” and critical errors helped us understand why even though we had set a record of safety training hours (alongside with other records such as revenue and total worked hours), we did not achieve our safety objective for that year. Our lost time accidents had increased to 35 and closed with a DART rate of 6.2. Nevertheless, our total recordable accidents lowered significantly, from 80 to 54.

The Nucor acquisition set a new standard on how we needed to approach safety and that we needed to make sure no teammate was harmed during work hours.

During 2019 we began to track and investigate not only lost time accidents, but also all recordables and first aid injuries. The objective was set, our injury and illness rate and our DART rate had to meet the target of 1/3 national average of 3 years of NIACS of our applicable NAICS code.

We conducted a safety audit and a follow-up audit. We focused on LOTO, hand safety and no touch tools. We tracked all action items derived from the audit and accidents that had occurred to ensure completion.

On July 15<sup>th</sup> we established POK’s Safety Day. We stopped 24 hours of operations in the foundry to understand a major near miss of a potential explosion of one of our induction furnaces. We did a complete clean-up of the foundry and a series of trainings. Nevertheless at 2:50 a.m. on November 12<sup>th</sup>, 2019 there was an explosion in one of our induction furnaces. Fortunately, nobody got hurt that night. We had to learn from that and make sure it would not happen again.

We did not achieve Corporate’s target, but we achieved our internal objective that was to be lower than 4.8 DART rate. We closed the year with a total of 56 recordables and of those 22 were lost time resulting in a DART rate of 3.9 and an Injury and Illness rate of 10.0. It had been POK’s safest year, but with a bittersweet taste due to our major incident.

In January 2020, Leon Topalian was named CEO & President of Nucor, and with a new leader in the company came new challenges. In February 11<sup>th</sup>, 2020 Leon challenged all teammates to become the safest steel company in the world. We rolled out a challenge coin that reminded everyone of us why and for whom we work safely; our families.

So far, we had continued the same strategy, making sure that everyone is aware of the hazards surrounding them. This challenge has been essential especially this year with all the changes and adaptations that we had to do due to the COVID-19 pandemic.

We started an observation program where teammates place their comments and observations of unsafe conditions and unsafe acts. We encourage teammates to report anything they believe can be potentially dangerous so it can be addressed promptly.

As of September 2020, we have had a total of 7 recordable accidents. Four of those were lost time. This translates to a DART rate of 1.12 and an Injury and Illness rate of 1.95.

## **4 The future**

There is still a long way to go in our journey as we move forward to become the safest steel foundry in the world. We need to make sure our work methods and systems are sustained over the years and not dependent on the current team or leadership. One way to do that is to migrate to ISO 45001:2018 and incorporate and systematize all best practices.

We need to conduct safety job analysis for every job and operation, study ergonomics and make sure our workstations are “work friendly”. Our team needs the best conditions to ensure they stay focused on their safety and work quality.

There are a million reasons why to choose the path of safety. In reality to be safe and to make our workplace safer for all our teammates is just the right thing to do.