



## PULP, PAPER & FORESTRY INDUSTRY - A CALL TO ACTION

### HYPER FOCUS & MISUSE OF TOTAL RECORDABLE INCIDENT RATE (TRIR)

It is with great enthusiasm that the Pulp & Paper Safety Association (PPSA) reach out to all our members, our industry, and beyond for a **Call to Action**. For many decades the Pulp and Paper Industry has made great strides in improving safety results. The industry safety journey has moved from a laissez faire approach, through focused compliance, prioritization, adopting a caring and values methodology and today - amidst a true understanding of science - a human organizational performance approach. Our efforts and successes have been immeasurable and many of us are on the cusp of greatness, but one critical challenge remains. There is a seemingly unshakeable obstacle that impacts all industry - a self-induced barrier in how we use lagging metrics -our failures- to evaluate and compare our performance. More specifically and certainly the worst is the use of the Total Recordable Incident Rate (TRIR) to grade, compare and incent not only our organizational performance, but the performance of individuals. Our industry is not alone in this challenge. While a number of organizations within the Pulp and Paper Industry have moved past this barrier, the prevalent cloud of its past misuse remains ingrained in our culture.

For those in the safety profession, the challenges faced regarding this very specific number have been daunting and exhausting to say the least. While it is recognized this regulatory measure provided useful statistical data to the Department of Labor, it is likely OSHA forefathers never anticipated the albatross the TRIR rate would become, or that it would become one of the most hijacked, misused, and manipulated statistic of all time. For safety professionals charged with interpreting a recordable injury, the statistic became one of the murkiest interpreted of all measures even though its criteria are very black and white.

One of the most disillusioning statistic in recent years is the false premise of what was believed to be an indicator of a strong safety performance ... the Holy Grail ... a sustained period of ZERO RECORDABLES. However, when analyzing site Serious Injury & Fatality (SIF) incidents, recent studies have identified no correlation in SIF occurrence between locations with low TRIR and those that experienced higher incident rates. Yes, you are reading that correctly ... over time, facilities that have zero or low incident rates are experiencing SIFs at a rate comparable to sites with higher TRIRs. This is significant in light of many of our organizational systems that focus attention and improvement methodologies on facilities with higher TRIR. By design, we have removed the focus from facilities with few or zero recordable incidents. In reality, instead of using TRIR to manage our safety efforts, we should be measuring a site's organizational capacity and the strength of their risk management systems. Simply put, what we incent, grade, and compare MUST be our capacity and system strengths versus relying on our self-reported - OSHA mandated - documented failures.

Let's test this philosophy with a comparison of how this data is commonly used today. Answer the following million-dollar question. Given organizations with similar population, risks, and resources, ***which of the following sites is safest when comparing their 2017 OSHA TRIR rate?***

**Site A: 3.45 TRIR**

**Site B: 0.00 TRIR**

**Site C: 0.98 TRIR**

If you believe the question is in fact a trick question, it may only be because this article has prepared you for what is a reality. It is simple to illustrate the influence and manipulation that occurs intentionally and unintentionally every day. For the purposes of this analysis, we are going to assume all three sites are not intentionally manipulating the numbers. So, what is your answer? If you have been relying upon TRIR, as many have for the last decades, you will likely lean towards Site B as the best performing site in safety and Site A as the worst. This may appear obvious because the higher ratio of injuries to employee hours indicates more medical treatment is occurring at site A than B. If your answer is that you do not have enough information, you are on the right path to understanding the intent of this article. But for the consummate safety professional and thoughtful leader, the answer is very quickly "the TRIR rate alone gives you little to no understanding of the site's safety performance capabilities." To understand why, let's look at some additional context about each site.

**Site A: 3.45 TRIR**

- In 2015, the site initiated and rolled out a comprehensive leadership approach using human organization performance methodology. Its primary goal was a reduction in SIFs and to identify precursors and eliminate high risk gaps.
- The site only tracks TRIR for annual reporting purposes for OSHA. The site does not use TRIR for a goal, performance bonus, incentive, comparison, grade, or as a measure of safety excellence. Leaders view a soft tissue recordable that was caught early as a positive indicator, believing that an employee may receive medical treatment resulting in a recordable, but likely preventing a rotator cuff surgery in the future.
- In addition to an experienced and competent 20-year industry safety professional, the site has a General Manager that experienced a site fatality early in his career after having a string of three years without a recordable incident.
- The site's key safety goals for 2017 were:
  - Complete separation of powered industrial trucks and pedestrians in ALL areas of the site, not just allowing a focus on warehouse traffic. To accomplish this a site logistical study was conducted, engineering controls were put in where the two types of traffic overlap, significant management system improvements were implemented, and auditing of those systems is on-going.
  - A significant capital project kicked off modernizing the site's 40-year-old rewinder where countless SIFs had occurred sporadically over a four-decade period.
  - Trend analysis indicated 50% of the injuries experienced were soft tissue related, so an Industrial Athletic Trainer was contracted to target early intervention, implement a proactive ergonomics focus, and conduct a significant amount of wellness training.

- The site had 6 recordable injuries.
  - A back injury resulting in 16 lost days from an employee slipping down wet stairs.
  - A hand laceration resulting in 3 stitches received from an unforeseen nail on a shipping container.
  - Employee visited Athletic Trainer (AT) with soreness in lower back. AT provided cold/heat therapy and prescribed stretching exercises to expedite the recovery. Based on the exercise treatment the injury was a recordable.
  - An employee slipped and fell in the parking lot. Site leadership immediately took the employee to the doctor to be evaluated. X-rays indicated there were no breaks but to help reduce swelling, the doctor prescribed a 600 mg anti-inflammatory medication. The site had 400 mg over-the-counter (OTC) doses in their first aid room, but the site leaders long ago had abandoned the need to manage medical care or “self-doctor.” Instructions were not provided to persuade the doctor from giving prescriptions or a need to ‘manage’ around an injury to avoid a recordable record. The fact that the employee was taking 600 mg of ibuprofen versus 400 mg had no impact on the root cause of the incident or the ability to prevent it. Site leadership did not believe that they knew better than a doctor on care management and to do so would be contrary to every mission, value statement or vision policy posted on conference room walls across their job site.
  - An employee visited the AT after being assigned a new job where they had to lift material above their head many times a shift. The employee spoke of moderate muscle pain in the shoulder and upper arms. The AT noticed that certain new muscles were being used and needed to be strengthened to help the employee avoid pain and tearing. The AT gave the employee resistance bands and showed the employee how to use the bands to strengthen their muscles required for the new task. The AT also gave OTC ibuprofen. Because the AT provided resistance bands, which equated to exercise instructions needed to strengthen and condition, the treatment was recorded because it was not on the OSHA list of first aid.
  - An employee had an allergic reaction to a bee sting in the woodyard. The employee missed the next day of work to recover and to allow swelling and discomfort to go down.

#### **Site B: 0.00 TRIR**

- The site had two years without a recordable injury. The site’s safety professional was new, and the General Manager was very involved in the determination of recordable injuries. The General Manager required the safety professional to be in the exam room every time someone sought medical treatment. They had several workers’ compensation cases but would always manage to eliminate the need to record anything based on the General Manager’s own interpretation of the recordkeeping requirements.
- The site has several key metrics around TRIR rates to include incentives for achieving zero recordable incidents within a department. The site provides a steak dinner for department teams that are able to work a year without a recordable incident. In 2016, the site presented jackets to all employees for experiencing a year with zero recordables.

- The site truly and sincerely shares a message that the company cares about employees and their efforts in safety are to drive injury free results and get their fellow workers back home safely. The General Manager is well respected, truly cares for the employees, and is recognized by the company as a good and solid leader.
- One of the site's key system gaps is its limited capacity around incident investigation and root cause analysis skills. And frankly, with such good incident rates they have not had much practice. Though they do have many near misses, some serious, they are not performing a deep dive or rooted cause review. They have recognized from an online benchmarking seminar that tracking near misses is important, therefore one of their annual goals was to collect more. And just like all other safety incentives, they have taken it seriously and have increased near miss reporting by 300% in 2017.
- The site's annual plan aligned closely with the corporate goals:
  - Lower hand lacerations
  - Improve near miss reporting and tracking
  - Track employee involvement in Behavior Based Safety programs
- Shortly after posting their second consecutive 0.00 incident rate for a calendar year, on February 12, 2018 the site had a SIF occurrence. An employee's arm was pulled into a nip and amputated at the shoulder. After company safety professionals investigated, rooted issues in Management of Change (MOC), allowing increased access to the hazard and a 1960's era equipment design allowing an exposed in-running nip were identified.

#### **Site C: 0.98 TRIR**

- The site has a very old school General Manager who has always gotten results with a punitive approach to safety discipline. Of the last five employee reprimands for safety, four were given after an injury had occurred.
- The site had only two recordable incidents – both were SIF classified injuries:
  - A maintenance employee sustained multiple broken bones after a fall from an elevated work area while trouble-shooting an issue at 2am that was causing down time. The employee was disciplined for not following the written fall protection program.
  - An employee received 30 stitches when he walked around a blind corner in a warehouse and his upper thigh was struck by the forks of a powered industrial truck. "Employee inattention to surroundings" was identified as the root cause.
- The site has many of the best written policies in their company, but they are almost verbatim to the OSHA standards and are a statement of policy - not a management system. The policies are well communicated, employees have access, and are typically linked to employee misconduct after an injury.
- The site has very little employee engagement and attendance at the central safety committee meeting has been nicknamed the "root canal hour."

Provided the site scenarios and only a little more information, it's clear that evaluating safety by TRIR alone is misleading. What appears to be the worst performing site (A) has the mature culture and more system capacity than both of the other locations. Site B would have likely received the least attention in a typical comparison. However, the site has a lot of low hanging SIF potential precursors that could be identified by basic safety evaluations or root cause analysis of their serious near misses. But because

there were zero recordables, senior leaders instructed resources to attend to other sites with higher TRIRs. The site with the TRIR performance in the middle (site C) most likely had the poorest safety culture. They appear stuck in the dark ages with a philosophy that discipline had a positive impact on safety, which resulted in a cause and effect culture where incidents were not reported, management was not trusted, and employees rarely became engaged!

You likely predicted the skewed results of each site based on the start of this article. But if you believe that these three scenarios do not represent real life situations and are extreme scenarios used to prove a point - you would be wrong. Chances are you're lucky to not have had the hard-earned lesson of the site leader who stood on the edge of a gravesite in the company of a spouse and children of a deceased employee. Who has the lowest TRIR, how our TRIR compares to others, or if we receive a bonus attributed to a TRIR is inconsequential if we continue to have SIF incidents. Sadly, at a micro level, the incident rate does not have the significance we once thought it did. And the gut realization that all of the collective effort, energy, and manipulation used to manage that number to zero took our eye off the real goal and continues to do so today.

What truly matters is the elimination of serious, fatal and life changing injuries. Of course, no one wants any injury, including those requiring minor care. Therefore, we should investigate with rigor and put in controls to prevent their occurrence. But it is paramount that when given our risk, the challenge of fast paced technology, increased turnover from an aging workforce, limited resources, the drive to become more competitive – we must focus on the higher risk first and not waste time on engaging and distracting our limited resources on managing and manipulating a number that does not indicate safety performance on a micro level. In certain instances, such as early intervention of soft tissue injuries, a recordable incident may be a positive metric of holistic prevention! While this discussion on the manufacturing industries reliance on and the significance of the Total Recordable Incident Rate may have struck a nerve, to ignore the argument and disregard the challenge this article sets forth could stall our industry progress towards serious injury and fatality prevention.

Let's focus on some industry comments in recent years.

**A veteran safety professional-** *I've worked for many site leaders and thankfully today, my current leader gets it! I once worked for a leader who said he would decide what is and isn't a recordable. He also insisted I try and get into the doctor's office to explain we have OTC medications on site and to encourage the doctor not to restrict work because we will let the employee take it easy. I am so happy where I am now, and I avoid wasting hours stressing over minor things or trying to be a doctor...I can now focus on really impacting safety.*

**A corporate safety professional-** *After acquiring a new company, I was hearing a lot of chatter on conference calls about 'avoiding' recordables. The energy was around how to avoid a recordable 'after' an injury and very little about root causes and prevention. One of the sites was really vocal about the effort they made to keep treatment in house and avoid a doctor because they had a nurse. I arranged a conference call with the site (General Manager, Safety, and medical staff) and as a responsible leader from the new legacy company, I became very direct and explained as a part of our new company we expected ALL injuries to be recorded by the book. I insisted the regulations and interpretations were very clear and precise, and it was an expectation not to manipulate the numbers. I encouraged them to focus more on the prevention before someone went to the doctor versus trying to be doctors themselves. I was*

*very respectful and made it clear I was there to support them and my effort to be direct on the subject was to help them be successful. After the call, the site nurse called me personally, crying and thanking me. She explained she had been asked on many occasions over the years not to document portions of the actual treatment given so that they would avoid a recordable. She advised this was very much in conflict with the way she was taught to document and detail. I assured her those days were over and thanked her for her thoughtful support.*

**A recently hired Senior Operational Leader-** *I transferred from an industry competitor that was very focused on Human Organizational Performance and Human Factors and the company had long since abandoned the internal use of TRIR. Within the first month of working for my new company, I heard that the company CEO wanted to be at the top of the industry related to TRIR. I understand he wants to be competitive but believe he demonstrated a failure to understand what TRIR was designed to measure. Very frustrated to take a step back in safety philosophy, and I've now come to recognize that many of our Senior Leaders really don't get it!*

**A facility General Manager-** *I've always felt like the emphasis we put on TRIR was hypocritical. At times when we were really working hard on safety focusing on engagement and management systems, I was still getting tons of pressure from Senior Leaders to do more because we had a few recordables, none of which were serious. Then at other times, when I had a zero, no one bothered me. It felt good to be out of the spotlight, but eventually we started getting complacent and had more serious near misses, but no one was looking at those. As I have matured as a leader, I have ensured I have strong safety resources, good employee engagement and all my leaders working on high risk systems. I deflect the focus on TRIR from the outside away from our employees and just do the right thing. But I still have that TRIR looming over my head with no real consideration to what I am really doing on site. I also have a really hard time getting capital money just for safety when there is no return-on-investment. The corporate group hammers me for a few minor recordables but when I explain I need capital to update aging hazardous tanks, their safety hammer vaporizes!*

If you have been in a site safety or key leadership role for more than a decade, it's almost certain you have heard or lived these examples. And to be kind, we have left out many examples of misuse and manipulation of TRIR, where the decision was unethical and willful and often times affected the potential to receive awards and monetary bonuses. The saddest part of all, is that these decisions were self-inflicted using a TRIR measure that was never intended to be used at a micro level. And, in most cases where the number was manipulated, there was an unintended cause and effect - one where leaders at all levels had no intention of creating a barrier and certainly cared about people and an improvement in safety. Whether it's unintended or willful, in order for true and effective safety practices, systems and culture to grow, the practice must stop.

Reliance on a TRIR rate can be an emotional topic. As such, it is imperative to summarize the critical talking points and identify the key call to action.

- The challenge with TRIR is not a Pulp & Paper Industry challenge...it is an inherent barrier in all industry. However, our goal is to move our industry past this barrier and to be the leader of all manufacturing related to solid safety results and continuous safety improvement.
- In the majority of cases where TRIR has been used improperly to incent, compensate, grade, and compare our safety strengths, there was no ill intent. The motivation has been to help drive



safety improvement. For most of the last two decades, awarding pizza parties, jackets and other incentives was a benchmarking best practice to help drive better safety performance. We have all done it, we were all trying to help. But as TRIR rates dropped off, improvement in the number of SIFs has flat lined for more than a decade.

- This article does not diminish the importance of a site which has sustained zero recordable incidents. Low incident rates can be a positive indicator, especially when the rate consists of low severity cases. Rather, the article's message is to ensure that our industry understands that solely relying on TRIR may lull one into a sense of complacency, missing SIF precursors that might exist. In addition, this article serves to demonstrate ways in which a hyper focus on TRIR can be a potential barrier to understanding authentic safety performance. This may cause leaders to waste time and energy, or worse, exercise poor judgement in the interest of protecting the site from outside consequences when they experience recordable injuries.
- It is not our intent to say **not** to measure TRIR. First of all, it is not our number to give and take. Secondly, it is a regulatory requirement. TRIR is likely not going away, and annually we must continue to report our numbers. But the first step in recognition of our misuse is simply to understand that the original intent of the TRIR was for macro statistical comparison of industries. It determined OSHA funding and was used for targeting regulation and resources. That's it...period.
- In reference to discipline, it is not the intent of this article to debate when and how discipline should be used. In some cases, it is necessary, prudent, and even referenced in OSHA standards in order to enforce compliance. The references within this article are used to illustrate the harm that unhealthy use of or the significant value some leaders believe employee discipline has on improving safety. Some have been applying discipline for decades with an iron fist. Where have the SIF improvement results been if it's truly helpful? Appropriate discipline should be applied where applicable, but only when human performance factors are weighed within the review of the incident, root cause analysis has been completed, and a true look in the mirror for shared just and fair accountability have been evaluated. It is critically important to have a far higher ratio of "pre-incident" discipline than "post-incident" discipline to ensure fewer barriers to incident reporting.

In conclusion, over the past three years, the PPSA has systematically taken steps to remove our own recognition and awards programs that have targeted lagging indicators, and are replacing them with employee engagement, leadership, and management system best practice recognition. We will continue to do so, but now we implore all within the industry to join our cause, an industry **Call to Action**.

- We ask that all industry companies and supporting associations that are still using TRIR inappropriately to stop using TRIR measure to incent, grade, or compare a company, division, or site's safety strength. Using the TRIR number to compare your company's strengths against a competitor is not helpful, and just like the three site examples given above, may falsely direct you to or away from benchmarking a better company. We encourage companies to track solely for its intended purpose and replace the lagging metric with high severity metrics and leading metrics that identify SIF precursors, measure employee engagement, and specifically target demonstrated leadership activities at ALL levels. This includes not using TRIR for monetary bonuses, prizes, or any perceived carrot that is dangled and then taken away when a failure

occurs. Simply **STOP** measuring performance by failures, and **START** looking at capacity and system strengths. Focus on high risk activities with continuous improvement in applying multilevel engineering and elimination controls. This includes removing location signage that indicates “days without an injury” – as that number increases, it often leads to suppressing incident reporting.

- We ask industry senior leaders to seek to understand how misuse of TRIR has affected your company in the past and present. We encourage open debate in a non-threatening atmosphere where leaders at a site level can share the dynamics and influences when the measure is used inappropriately. Listen to your competent and trusted safety professionals who have worked in and around this barrier for decades. Collaborate with the human resources function to align performance management, recognition, and reward systems towards leading indicators.
- For companies who have already abandoned this misuse and overemphasis, reach out to fellow competitors, and help guide them to remove this self-induced barrier which can have an unintended cause and effect. For those most mature amongst our industry - share your testimonials regarding how you care about employees’ quality of life. Advocate the use of medical resources, early intervention of pain and discomfort and err on the side of caution to ensure employees receive quality care directed by healthcare providers. Encourage colleagues to do all these things in good faith, even if that compassion comes with tipping the scales of compliance with a need to record even a very minor injury.

**A final thought from a 25-year industry safety professional-** *The day I can just care about an employee at the moment they have an issue (pain, medical concern, injury or potential re-aggravation of a personal injury) and just help them get medical attention without the albatross of negative consequences hanging around my neck...I will likely go to my office, close the door and really just have a good cry. No one really understands how we are conflicted to always do the right thing when we could be admonished for providing reasonable care. Why can't we provide a level of medical treatment that exceeds all abundance of caution while showing compassion for a fellow employee? The cost is inconsequential compared to the long-term credibility damage we cause when managing a case to avoid the OSHA recordable threshold. I am just exhausted playing the recordable game all these years.*

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Please feel free to contact PPSA with and comments or questions at

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