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Lagging Indicators & Leading Indicators Impact to the Safety Performance

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Icebreaking – Famous Safety Posts

Safety could be funny sometimes....



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When we refer to **Risk** in relation to occupational **Safety** and **Health** the most commonly used definition is **Risk** is the likelihood that a person may be harmed or suffers adverse health effects if **Exposed** to a **Hazard**.

Lagging Indicator of Safety Performance

What is a lagging indicator?

Lagging indicators measure a company's incidents in the form of past accident statistics.

Examples include:

- **OSHA Recordable Rate**
- **OSHA Lost Time Injury Rate**
- Incident Rates
- Worker's Compensation Costs

Lagging Indicator of Safety Performance

Why use lagging indicators?

Lagging indicators are the traditional safety metrics used to indicate progress toward compliance with safety rules.

These numbers usually tell you how many people got hurt and how badly.

These are the bottom-line numbers that evaluate the overall effectiveness of safety at your facility.

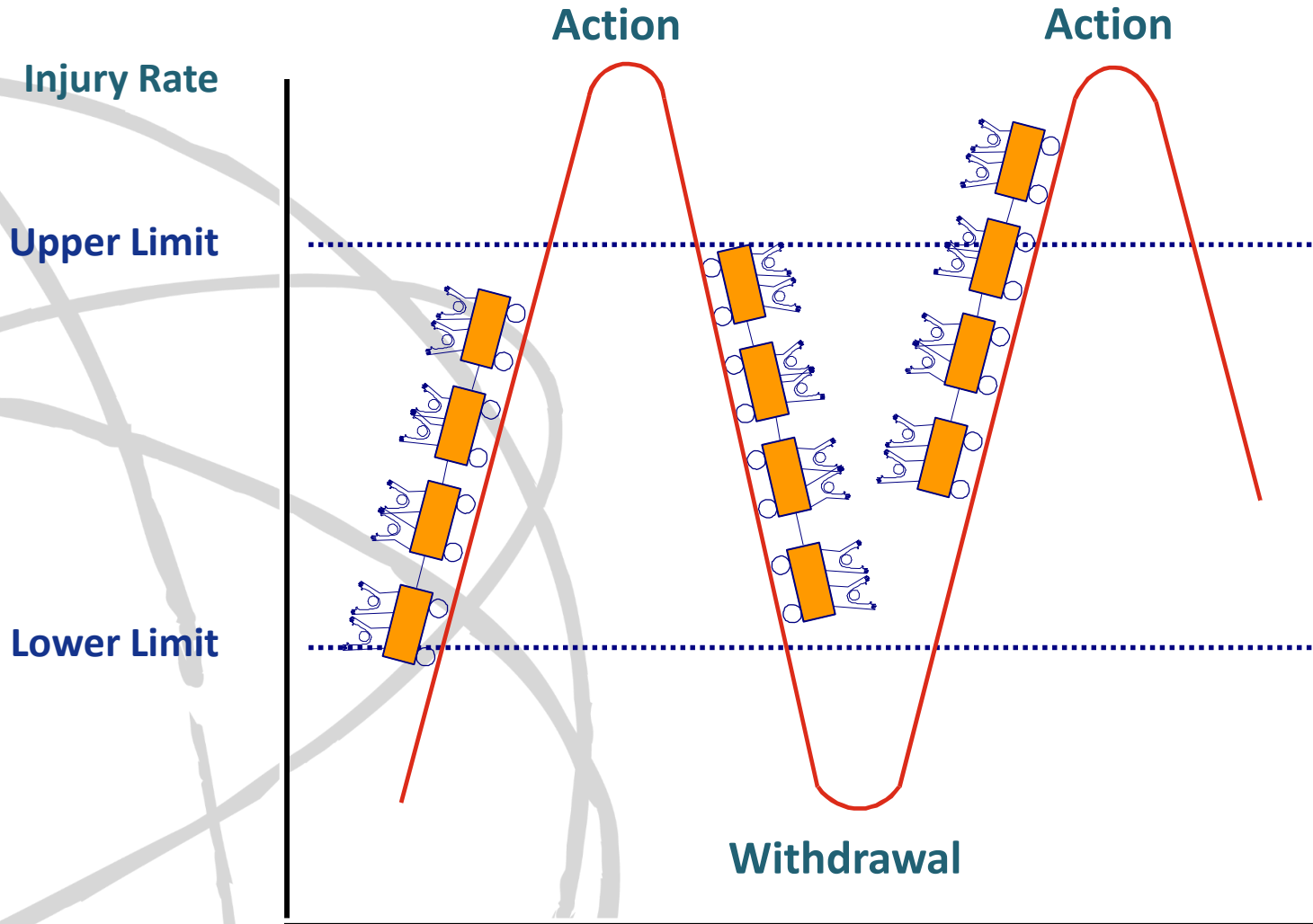
Lagging Indicator of Safety Performance

The drawbacks of lagging indicators.

The major drawback to only using lagging indicators of safety performance is that they tell you how many people got hurt and how badly, but not how well your company is doing at preventing incidents and accidents.

The reactionary nature of lagging indicators makes them a poor gauge of prevention. For example, when managers see a low injury rate, they may become complacent and put safety on the bottom of their to-do list, when in fact, there are numerous risk factors present in the workplace that will contribute to future injuries.

The Safety Cycle





Safety must be a Value...Not a Priority

Leading Indicator of Safety Performance

What is a leading indicator?.

A leading indicator is a proactive measure or a group of activities toward prevent and control injury.

Why use leading indicators?

Leading indicators are focused on future safety performance and continuous improvement. These measures are proactive in nature and report what employees are doing on a regular basis to prevent injuries.

Leading Indicator of Safety Performance

Examples of Leading Indicators

- Effective Safety Trainings
- Training Evaluation and Follow-Up
- Hazard Assessments and Corrections
- Behavioral Safety Observations
- Implementation of Safe Operating Procedures
- Injuries Data Analysis
- Implementation of Preventive Action Plans

Leading Indicator of Safety Performance

Best practices for using leading indicators

Companies dedicated to safety excellence are shifting their focus to using leading indicators to drive continuous improvement. Leading indicators measure performance, and that's what we're after!

1. Allow you to see small improvements in performance
2. Measure the positive: what people are doing versus failing to do
3. Enable frequent and accurate feedback to all levels of the organization
4. Be credible to performers
5. Be proactive
6. Increase constructive problem solving around safety
7. Make it clear what needs to be done to get better
8. Track Impact versus Intention

While there is no perfect or “one size fits all” measure for safety, following these criteria will help you track impactful leading indicators.

Reactive

Lagging

Fatality

Lost Time

Recordable

First Aids

Hazard Assessments & Corrections

Trainings

Leading Indicators

Systems/Procedures

At-Risk Behavior

Proactive

**Controlling / Managing
Hazards & Exposures as much as possible**



Reduce the Risk Factor



The likelihood of an incident take place decrease

Leading Indicator of Safety Performance

How could your company use Leading Indicators

By utilizing a Safety Strategic Improvement Process (SIP) that emphasized leading indicators of safety, you will see a reduction of injuries and a direct/indirect cost savings.

The critical elements of the SIP included:

- Company-wide statement of safety culture.
- Global process, tools and metrics.
- Top-down management team engagement with the process.
- Clearly defined and linked roles and responsibilities.
- Clearly defined accountability.
- Consistent methods establishing targets and reporting performance.
- Consistent criteria for prioritizing issues and aligning resources.
- **Recognition for positive behavior and performance.**



Setting Company Goals based on Lagging & Leading Indicators

Lagging Indicator

Using Lagging Indicators in Safety to set Company Goals

- **NAICS – North America Industry Codification System**
- **BLS – US Bureau of Labor Statistics**

The information below is based on BLS Incident Rate Data for 2017 using the NAICS -1112 (Vegetable and Melon Farming)

- **Company OSHA Recordable Rate Goal: 4.2**
(2017 BLS Ind. Ave.: 4.6)
- **Company OSHA Lost Time Injury Rate Goal: 1.0**
(2017 BLS Ind. Ave.: 1.4)

*OSHA Rec. Rate = 200,000 * Rec. Injuries / Total Hours Worked*

*OSHA LTI. Rate = 200,000 * LTI Injuries / Total Hours Worked*

Leading Indicator

Using Leading Indicators to Accomplish Company Goals in Safety

LEADING INDICATORS	ACTION ITEMS	MEASURE THE GOAL	LEADER	WHO HELPS	COMMENTS / UPDATE
<p>2. BEHAVIORAL OBSERVATION</p> <p>At risk behaviors are involved in 85-95% of the accidents</p> <p>When we focus on injury rates, we tend to be very reactive. It tells what has happened behind us, but it doesn't show us where we are going.</p> <p>The focus would be in what is out in front of us in order to make good safety decisions. We need indicators to tell us where we are going instead of only relying on accidents that tell us where we have been.</p>	<p>1. Conduct Behavioral Safety training for Management Team and all affected employees.</p> <p>2. Develop Behavioral Observation Forms that include critical behaviors: (Lifting, Eyes on Path, Eyes on Work, Line of Fire, Ascending/Descending, PPE, Pinch Point, Housekeeping, etc.)</p> <p>3. Conduct observations to employees on regularly basis while performing their tasks. Provide feedback to reinforce safe behaviors and address at-risk behaviors.</p> <p>4. Use the data from the observations to predict possible future incidents and implement the preventive measures before incident take place.</p>	<p>1. Behavioral Safety Observations are being conducted on regular basis.</p> <p>2. Feedback to reinforce safe behaviors and address at-risk behaviors observed is being provided.</p> <p>3. Data from the observations have been used to implement Preventive Action Plans (PAP) before the accident take place.</p>		<p>Company Safety Team</p> <p>&</p> <p>AJG LC Consultant</p>	

Leading Indicator

Using Leading Indicators to Accomplish Company Goals in Safety

LEADING INDICATORS	ACTION ITEMS	MEASURE THE GOAL	LEADER	WHO HELPS	COMMENTS / UPDATE
<p>4. HAZARD ASSESSMENT & CORRECTION</p> <p>Leadership team will conduct work place hazard assessments on regular basis. The identified hazards will be corrected as it is mandatory by CALOSHA regulations (T8CCR3203-IIPP Section 4 & 5)</p> <p>Hazard assessments forms will be adapted to make sure the assessment are being done focus on most critical root causes of previous accidents.</p>	<p>1-Develop the hazard assessment forms.</p> <p>2-Traing the leadership team on how to conduct an accurate hazard assessment.</p> <p>3-Train the leadership team on the three most common methods of corrections.</p> <p>4-Review identified hazards and corrections with all affected employees during safety meetings</p>	<p>1-Hazard Assessment Forms have been developed.</p> <p>2-Leadership team has been trained on proper ways to conduct hazard assessments and corrections.</p> <p>3-Communication of the hazard assessments and corrections are part of the safety meeting agenda.</p>		<p>Safety & Operations Team</p> <p>AJG LC Consultant</p>	

Leading Indicator

Using Leading Indicators to Achieve Company Goals in Safety

LEADING INDICATORS	ACTION ITEMS	MEASURE THE GOAL	LEADER	WHO HELPS	COMMENTS / UPDATE
<p>1.SOP</p> <p>Develop and Implement SOPs for those routine tasks that involve high risk factors and multiple injuries had occurred in the recent past:</p> <ul style="list-style-type: none"> • Connecting and Disconnecting implements from the tractors • Loading/Unloading trailer pipes • Connecting and Disconnecting irrigation pipes • Carrying irrigation pipes across the field 	<p>1-Conduct SOPs training for Management Team (Consider <i>JHA</i> as part of this training).</p> <p>2-Identify the top 5 routine tasks with higher risk factors</p> <p>3-Development & Implementation of the SOPs (training, evaluation and correction)</p>	<p>1- Effective SOPs training is conducted</p> <p>2- SOPs have been developed and successfully implemented.</p>		<p>Company Safety Team & Ops. Team</p> <p>AJG LC Consultant</p>	

Leading Indicator

Using Leading Indicators to Accomplish Company Goals in Safety

LEADING INDICATORS	ACTION ITEMS	MEASURE THE GOAL	LEADER	WHO HELPS	COMMENTS / UPDATE
<p>5. ACCIDENT INVESTIGATION</p> <p>Conducting proper accident investigations where all possible root causes are identified and preventive action plans are Developed /Implemented is an important factor in the efforts to reduce accidents.</p>	<p>1-Conduct Accident Investigation Training for leadership team members</p> <p>2-Review and evaluate the quality and accuracy of the accident investigations.</p> <p>3-Provide feedback for improvement</p>	<p>1-Quality Accident Investigation are being conducted by Management Team.</p> <p>2-Data gathered during the Accident Investigation is accurate</p> <p>3-Preventive Action Plans have been implemented using the data from the Accident Investigations.</p>		<p>Safety & Operations Team</p> <p>AJG LC Consultant</p>	

Leading Indicator

Using Leading Indicators to Accomplish Company Goals in Safety

LEADING INDICATORS	ACTION ITEMS	MEASURE THE GOAL	LEADER	WHO HELPS	COMMENTS / UPDATE
<p>3. SAFETY TRAINING & FOLLOW UP</p> <p>Safety trainings need to be customized to address the most critical root causes of recent accidents.</p> <p>Safety and Ops. Team will conduct behavioral observations in the workplaces to assure employees are performing the job safely as it was presented during the training.</p>	<p>1-Use the root causes identified during the accident investigations /regulations/best practices to develop the training topics (Lifting, Slip/Trip/Fall, PPE, Struck by, Ergo, etc.)</p> <p>2-Use the data gathered during the behavioral observations to customize the safety trainings.</p> <p>3-Delivery the training for all affected employees.</p> <p>4-Management Team will conduct regularly observations to evaluate the effectiveness of the training.</p>	<p>1-Customized safety trainings have been developed based on previous accident data analysis, behavioral observations results, compliance audits, etc.</p> <p>2-Trainings have been conducted to all affected employees.</p> <p>3-Safety and Ops. Team regularly conduct observations in the workplaces to reinforce information presented during safety training.</p>		<p>Safety & Operations Team</p> <p>AJG LC Consultant</p>	

Lagging Indicator & Leading Indicator

Conclusion

To improve the safety performance of your company and in order to establish a sustainable safety culture, regardless the type of industry, you should use a **combination of Lagging and Leading Indicators.**

In order to accomplish your Company Lagging Indicator Safety Goals you must **develop and implement a strong foundation based on Leading Indicators.**

When using leading indicators, it's important to make your metrics based on impact. For example, don't just track the number and attendance of safety meetings and training sessions – **measure the impact of the safety meeting by determining the number of people who met the key learning objectives of the meeting / training.**



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“Safety is not an intellectual exercise to keep us in work. It is a matter of life and death. It is the sum of our contributions to safety management that determines whether the people we work with live or die.” - Sir Brian Appleton

Muchas Gracias