Leading and Lagging Indicators in Contractor Management: Using Analytics for Improved Decision Making

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ABSTRACT

Global industry trends indicate increased outsourcing of non-core business activities (i.e. construction, maintenance, engineering, etc.) to third party contractors. Data from several industries show that contractors face 1.5 to 3 times higher incident rates than employees of the outsourcing company.

The presentation “Leading and Lagging Indicators in Contractor Management: Using Analytics for Improved Decision Making” discusses leading edge approaches for managing contractor risk, currently implemented by organizations in the oil and gas, pharmaceutical, and manufacturing industries. Utilizing a database of over 23,000 contracting companies and 135 owner/operator companies, the presentation accumulates five years of extensive health and safety data to indicate trends associated with health and safety management and performance improvement.

Utilizing advanced statistical analysis methods, including pairwise correlational analysis, linear and logistic regression models to analyze this data, actionable leading indicators and insightful trends will be discussed during the presentation.

The presentation also examines best practices and decision making tools that are attributed with a health and safety management process related to contractor risk management.

In the presentation, a practical model to address the following key elements will be discussed:

1. Gathering, reviewing and verifying contractor information as part of the due-diligence process
2. Analyzing leading and lagging performance indicators
3. Driving safety through feedback, benchmarking, and continuous improvement.

The following are core topics to be presented and discussed:

1. A Process Model: A contractor health and safety information management model being used by more than 135 global organizations including Chevron, Valero, ExxonMobil, Georgia-Pacific, Bristol-Myers Squibb, and TransCanada
2. Lagging Performance Indicators: Key historical performance indicators being utilized for informed decision making (Total Recordable Incident Rate, Fatality statistics, Workers’ Compensation Rates, Days Away from Work, etc.).
3. Leading Performance Indicators: Using safety programs, training, and audit information as a leading HSE performance indicator.
4. Case Studies: Discussion on how major oil and gas operators manage thousands of contractors to achieve tangible safety performance improvements through informed decision making.
5. Benchmarking Statistics and Trends: A discussion on health and safety trends developed from over 23,000 contracting companies’ data and how these trends can be used to benchmark performance and drive continual safety improvement.