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The implementation of a behavior based safety program in conjunction with substance abuse screens to reduce incidents and accidents

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Abstract

Behavior Based Safety has become a growing concern in many workplaces over the last decade. Many companies do not have a strong safety program to protect themselves, as well as their employees, from human error incidents and accidents caused from the use of substances. This technical report investigates the connection between the frequency of drug and alcohol screenings to the incident and accident rate each year at a specific lumber facility in the Northwest United States.

The lumber facility experienced several policy changes due to reoccurring incidents and accidents. The most common abused substances included: marijuana, alcohol, and tobacco. These policy changes included the addition of pre-employment and post-accident screenings, random drug and alcohol screens, reasonable suspicion drug and alcohol screens, and observed substance abuse screens.

Data collected over a four year and eight month period did not detect a direct relationship among incident and accident rates. Although there wasn't a correlation, substance abuse was proven to have a positive connection with workplace safety at the lumber facility.

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This IH Report is dedicated to my Grandfather and Grandmother, Kenneth and Kathleen Campbell, whom were both insurance adjusters for 45 years before their passing.

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Introduction

Behavior Based Safety is the application of a science which focuses on intentions and actions to change individual behavior in organizations. The behavior method has been demonstrated to create a safety partnership between management and individuals (Daniels, A., 2015). Behavior safety focuses on individuals' actions, analyzes why the action was performed in a particular way, researches more efficient methods, and implements safer practices (Daniels, A., 2015).

Substance abuse is described as the use of medications, alcohol, or illicit drugs to alter ones behavior, body functions, and mind (Saisan, J.et al., 2016). Prescription medications, marijuana, cocaine, heroin, methamphetamines, and alcohol abuse are becoming more popular in society (Saisan, J.et al., 2016). Some believe the use of these substances has increased due to added availability than compared to the past, while others argue substances have always been present and young adults are lacking education (Bouchez, 2006). The best defense against substance abuse is knowledge and understanding the consequences if an individual uses and/or abuses a substance (Bouchez, 2006). Substance abuse should not be taken lightly, as it is an increasing issue with the younger generation experimenting with substances for the first time (Havassy, Alvidrez, & Mericle, 2015).

Behavior and associated poor judgment is a serious safety concern. The economic impact on the lumber industry is difficult to measure because many costs are hidden or go unnoticed (Health, 2015). However, it has been noted the largest costs are from productivity loss, health

care, policy and law enforcement costs, and other direct expenses. Additional costs could include sleeping on the job, individual theft, low employee morale, and increased disciplinary procedures (Fisherabc & Browna, 2015).

Behavior Based Safety.

Behavior Based Safety is a science which has been studied for decades and has shown some significant changes within organizations whom have developed and implemented such practices (Wachter, 2013). Behavior Based Science is the study of behavior which is said to have begun with Herbert William Heinrich in the early 1970's (Daniels, A., 2015). Heinrich concluded behaviors have been the major cause of incidents. His interest was in analyzing the data, rather than finding a way to change behaviors. (Daniels, A., 2015) In today's society, the data is analyzed per facility and a hypothesis is formed and tested to apply those findings to the organization (Daniels, A., 2015). Improvements include hands on training and focusing on individual's behaviors. Roughly 90% of all incidents are a direct result of human error (Daniels, 1999).

Motivation is the core of Behavior Based Safety, which focuses on the relationships of need, motive, objective, and behavior (Arntzen, 2011). In behavioral science, an individuals' motivation is derived from need which confirms behavior, objectively. The relationship between motivation associated with work cognition and behavior is expressed as; individuals form decisions and behave on the basis of work perception (Arntzen, 2011). Motivation plans the function of inspiring, driving, and strengthening human behaviors (Daniels, A., 2015).

Behavior Based Safety focuses on what individuals do, analyzes why they do it, and utilizes the information to improve individuals' actions. Behavior Based Safety is based on a larger scientific field called organizational behavior management (Arntzen, 2011). Organizations

will adopt either a human performance system or safety management system as an approach to managing their safety functions to achieve excellence (Wachter, 2013).

Human performance programs have several organizational weaknesses which will give flawed defenses and precursors to unsafe conditions (Wachter, 2013). Unsafe conditions can increase the probability of human error while performing specific actions. This type of system cannot plan for nor control the potential for error (Nayab, 2010). Human performance systems tend to be institutionalized on policies, plans, procedures, and processes which make it difficult to readily adapt to natural variations. In a human performance program, errors occur due to the system defending against all potential errors which are controlled to a high degree. Therefore, the program would be time consuming, unworkable, and uneconomical to implement (Wachter, 2013).

A safety management system is based on the hierarchy of hazard control, where Behavior Based Safety can be applied in the strategies and administrative controls (Wachter, 2013). Safety management systems adopt an observational method where individuals are observed for behaviors and provided feedback for critically defined behaviors (Wachter, 2013).

There are a number of tools which can be used with either type of system (Daniels, A., 2015). These apparatus's can be viewed as avenues for mental and social skills which complement individual's technical skills in performing their duties safely (Daniels, A., 2015). The performance tools are worker centric to which they engage the individuals to have more situational awareness concerning their safety and the safety of others (Wachter, 2013). Worker engagement may systematically act to reduce the probability of human error, and thus increase the levels of worker engagement in safety activities (Wachter, 2013).

Substance Abuse.

Substance abuse is defined as a pattern of harmful use of substances for mood altering purposes (Ciccarone, 2011). When individuals hear the phrase "drug abuse", they are often referring to the use of illicit drugs. However, some individuals would argue drug abuse is the overuse of any potentially addictive and mood altering substance. Others may think the use of some drugs is not harmful if used as a recreational drug (Ciccarone, 2011). The top six most abused substances are heroin, cocaine, marijuana, methamphetamines, alcohol, and tobacco. The following illustrates these top six abused substances and their negative side effects.

Heroin is ranked the number one most abused substance giving the user a feeling of extreme euphoria (Volkow, 2010). The tolerance to the drug develops quickly and increased doses are needed in order to achieve an exhilarated affect (NIDA, 2015). Heroin can be injected, snorted, or inhaled (Robert Johnson Foundation, 2013). The drug enters the brain rapidly, but causes the user to have slow reactions (Carroll & Gregorian, 2015). Dirty injection needles can contribute to health complications and serious skin infections (Fisherabc & Browna, 2015). Unfortunately, heroin is an extremely addictive substance and the amount of users continues to increase at a steady rate.

Cocaine is ranked as the second most abused substance in the United States (Kim, 2014). Cocaine is derived from the coca plant in South America and can be smoked, injected, snorted, or swallowed. The drug in powder form is referred to as cocaine where as the crystal form is known as crack cocaine (Carroll & Gregorian, 2015). The intensity and power of the drug depends on the dose and the frequency of use (McLellan, et al., 2014). Short term effects of cocaine are a powerful high followed by a strong feeling of depression, causing a profound craving for the drug (Fisherabc & Browna, 2015). Individuals who use cocaine are unable to eat

and sleep, with increased heart rates and convulsions. Long term effects cause irritability, paranoia, and severe depression (Carroll & Gregorian, 2015).

Marijuana is the third most abused substance and is becoming more potent today than in the past. Marijuana comes from the *Cannabis sativa* plant. The plant produces a tetrahydrocannabinol active ingredient associated with the feeling of intoxication. Emergency room visits are steadily increasing due to unique growing techniques and the use of selective seeds which ultimately produce a more powerful drug. Marijuana users build up a tolerance to the drug, which leads to users consuming stronger drugs to achieve the same type of high (Carroll & Gregorian, 2015). The short term effects of marijuana use are loss of coordination and time, vision and hearing loss, sleepiness, red/blood shot eyes, hunger, and relaxation (Fisherabc & Browna, 2015). The body's heart rate can speed up within the first hour of smoking the drug, which increases the risk of a heart attack (Carroll & Gregorian, 2015). The long term effects of marijuana can cause psychotic symptoms, slower brain response, damaged lungs and heart, frequent wheezing and coughing, and reduces the body's ability to fight off lung diseases, such as bronchitis (Carroll & Gregorian, 2015).

Methamphetamines are the fourth most abused substance being a powerful stimulant which can be injected, snorted, inhaled, or ingested (Kim, 2014). Crystal meth resembles small fragments of shiny blue to white glass rocks. Methamphetamines are highly powerful drugs and extremely addictive after the first use (Carroll & Gregorian, 2015). The short term effects of methamphetamine use are hyperactivity, sleeplessness, delusions, irritability and loss of appetite (Fisherabc & Browna, 2015). Long term effects cause increased heart rate and blood pressure, damage blood vessels, lead to stroke and other cardiovascular issues, brain damage, memory loss, and inability to grasp abstract objects (Carroll & Gregorian, 2015).

Alcohol abuse is the fifth most abused substance amongst Americans (Kim, 2014). Alcohol is used by non-addicts as a recreational or social substance. In reality, alcohol depresses the brain, lessens coordination and muscle control, and creates slurred speech (McLellan, et al., 2014). Consuming large amounts can lead to many long term ailments including coma or death, especially when mixed with prescription medications or illicit street drugs (Carroll & Gregorian, 2015). Alcohol abuse is the number one cause of liver failure, enlargement of the heart, and cancer in the pancreas or stomach (Fisherabc & Browna, 2015). Statistics show alcohol is a contributing factor in nearly half of all fatal motor vehicle accidents, costing the economy and society billions of dollars each year (NIAAA, 2016).

Tobacco is the sixth most abused substance (Kim, 2014). Tobacco is used for many reasons such as pleasure, relief from depression and stress, and for weight control. The addictive ingredient in tobacco is nicotine or *Nicotiana tabacum*, which is a nitrogen containing chemical (Nordqvist, 2015). Cigarettes, chewing tobacco, and cigars not only contain nicotine but thousands of other chemicals which are known to cause health problems such as lung and mouth cancers (Fisherabc & Browna, 2015).

As individuals progress into using stronger addictive drugs, the signs and symptoms of substance abuse become easier to recognize (Staff, Diseases and Conditions, 2015). Initially, most drug addictions begin as a social drug, which leads to a habit (Staff, Addiction, 2014). Individuals who are frequent users of marijuana will often carry eye drops and a smoking pipe, their eyes will be blood shot, and their hygiene and sleep patterns begin to change. Marijuana also leaves a sweet smell on clothing (WebMD.com, 2014). Inhalants, club drugs, stimulants, heroin, and other hallucinogens show signs of body rashes, heavy breathing, runny nose, poor hygiene, dilated pupils, and injection marks on the user's arms, thighs, or in between their toes

(McLellan, et al., 2014). Individuals using these substances can go long periods of time without sleep, have the drugs in their possession, and have the necessary utensils to use the drug (WebMD.com, 2014). Some other general signs of individuals under the influence of drugs or alcohol include: loss of appetite, weight loss, poor hygiene, loss of motivation, hoarseness, or persistent cough (WebMD.com, 2014).

Although illicit substances are the most commonly abused drugs, other legal medications such as prescriptions are more commonly abused than in the past. Any time a prescription medication is taken in a way other than what is prescribed by a physician, it is considered prescription drug abuse (National Institute on Drug Abuse, 2015). The most common types of prescription drug abuse come from narcotics, such as morphine; sedatives, such as valium; tranquilizers, such as xanax; or stimulants, such as nicotine (National Institute on Drug Abuse, 2015).

Impact of Substance Abuse.

Each year, substance abuse costs American businesses roughly $276 billion in healthcare disability payments, lower productivity, and compensation claims (Health, 2015). Individuals who abuse substances are three times more likely to be involved in a workplace incident (NCADD, 2015). Up to 50% of all workplace incidents are linked to substance abuse (Slavit, W. et al., 2009). Roughly 75% of adult substance abusers who are employed are using alcohol and/or marijuana before or during work hours (Slavit, W. et al., 2009). Individuals who abuse substances are more likely to: be late to work, miss work, be involved in a workers' compensation incident and/or accident, be less productive, and change their occupation occasionally (NCADD, 2015). Individual’s workplace behavior is also an indicator of a substance abuse problem if employers notice: frequent complaints or excuses, poor personal

hygiene, blaming others, and carelessness (Lytle, 2004). Various individuals and social factors can play a role in substance abuse in the workplace including: high stress, boredom, fatigue, isolation, repetitiveness, and low satisfaction (Health, 2015).

The lack of substance abuse screenings can be one reason why workplace incidents are increasing within companies (NCADD, 2015). Employers have the right to implement drug free workplace and/or substance abuse policies. A policy of this kind could improve morale and productivity while decreasing the likelihood of an incident occurring (Hartman, 2013). Facilities which have implemented substance abuse policies are qualified for incentives such as a decrease in workers' compensation insurance costs (NCADD, 2015). Elements of a substance abuse policy include: statement or purpose, definition, which individuals are covered under the policy, individuals rights, and how to deal with impaired users (Health, 2015).

Employers are also able to develop health and wellness programs, and individual assistance programs. A health and wellness program delivers a message to all individuals on the importance of preventing unhealthy and hazardous use of substances (Slavit, W. et al., 2009). Health and wellness programs will also remind individuals to watch for excessive drinking outside the workplace, which may have an impact on fellow co-workers health and safety (Slavit, W. et al., 2009). Individual assistance programs provide information, resources, referrals, and counseling on substance abuse issues. These programs also help employers identify and address a variety of individual problems and proactively deal with workplace issues as they arise (Slavit, W. et al., 2009).

Small to medium sized companies are usually weak in fundamental management system and may lack professional management talents such as health and safety expertise (Slavit, W. et al., 2009). These companies are often found in a labor intensive industry, such as mining and

manufacturing. Often times, these companies do not attract exceptional individuals because of high turnover rates, inadequate safety knowledge, and weak risk awareness (Slavit, W. et al., 2009). Based on this information, the weakest aspect of the organization is human factors, which can lead to serious unsafe behaviors and frequent incidents (NCADD, 2015).

Objective

The objective of this paper is to evaluate the impact of a drug and alcohol screening program and a behavior based safety intervention program on incidents and accident rates at one lumber facility in the Northwest United States. Over a four year and eight month period, incident and accident statistics at this facility were examined to determine the answer to one important question: did the implementation of drug and alcohol testing program as well as a behavior based safety program at this facility have an impact on the number of incidents and accidents over a four year and eight month period?

Lumber Facility Process Description.

The lumber facility was founded in 1949, employs roughly 150 individuals from the surrounding areas, and utilizes up to forty truck loads of logs per day. The logs are stacked according to species and size in the log yard, waiting to go through the sawmill process. All tree bark is removed by a process called debarking before the log enters the mill. The bark is used for fuel to heat the boilers. Once debarked, the log enters the sawmill headrig, where two seven foot saws cut the round log into a two or four sided square log called a *cant*. The remaining product is made into chips which are sold to a fiber mill.

If the log was smaller than eighteen inches, it was sent to another optimized piece of equipment called the *end dog lineal feed*, where it was turned into a cant. Once the log is turned

into a cant, the log is placed on a chain conveyor system heading towards the curve saw. This particular equipment contains seventy-eight circular saws, where scanning and cutting occurs to trim the cants into boards. The boards are placed on a different chain conveyor to be sent to the edger or the trim line. The edger scans each board deficiencies to determine the largest piece of finished lumber; then sends the board to the trim line.

The trim line was also fully optimized where the board was scanned for defects Once the board has made it through the trim line, it travels to the bins where the boards are sorted by length, width, thickness, and moisture content. When a bin has reached its maximum capacity, it's dumped onto a moving chain conveyor to the stacker where the boards are spaced accordingly to aid in the drying process. Stickered lumber units are placed on rail tracks and rolled into the kilns. Under steam, the lumber is dried to a moisture contents suitable for surfacing. Drying can take 24-72 hours depending on the size and the species of lumber. The industry grade rule requires moisture content of 10-19%, according to the lumber facility studied.

Once the lumber has finished drying, it is sent to the planer where it is surfaced and sized to exact industry standards. The excess material is called shavings and is sold as a bi-product. The planed lumber is sent to the grading table, where certified lumber graders manually “grade” each board. Once the boards have been graded, they are presented for trimming. The automated trimmer reads the grade mark and cuts the boards to the marked specifications. Approximately 40% of the finished lumber is manually stacked depending on the grade mark. The remaining 60% can be sent to an automated end stacker. Finished units from the stacker and dry chain are sent to the strap and wrap station, and stored in the shipping yard.

Intervention Measures.

Prior to 2011, the facility did not have a consistent substance abuse policy, meaning the managers and supervisors would decide on when to test and who they wanted to test. In 2011, the facility adopted a pre-employment testing policy requiring all individuals to take and pass a urinalysis and breathalyzer. In 2012, the facility adopted a post-accident substance test along with the pre-employment test. The revised policy stated each individual whom seeks medical attention from an on the job injury was required to submit a post-accident drug and alcohol screen. The policy also stated if that person fails a post-accident drug and alcohol screen, they would be given the option to seek treatment and the individual's position with the facility would be held for ninety days. Once the employee completed treatment, they would be subject to follow-up screenings at any time for the duration of their employment. If the individual who completes treatment fails a follow-up screen, they will be terminated from the facility.

In 2013, the facility updated their substance abuse policy again by implementing random drug and alcohol screens. The policy stated all active individuals, including owners and managers, be placed into a randomized drawing by a third party facility once per quarter. The percentage of individuals drawn for a random substance screen was be anywhere from 10-20%. The behavior based safety program began to be developed, with the implementation of a safety committee and a hazard recognition form called recognize, identify, and correct (RIC) (see Appendix C). Facility employees were trained to watch other individuals as they worked to look for unsafe conditions and behaviors. These unsafe behaviors included: line of fire, pinch point, eyes on path, eyes on task, ascending and descending surfaces, lifting, lowering, walking working surfaces, twisting, turning, pushing, pulling, ergonomics, personal protective equipment, communication, housekeeping, lockout/tagout, and equipment. The unsafe conditions include:

health and safety programs, safety data sheets, fire extinguishers, fall protection, secondary containers labeled, first aids kits, and electrical. The facility owners and managers agreed their current safety programs and policies needed to be updated in order to achieve safety excellence in the industry, and to change the behaviors of the individuals in safety sensitive operations. The implementation of a hazard recognition form was a small a component if this program.

In 2014, the substance abuse policy was revised to include reasonable suspicion drug and alcohol screens. Owners, managers, supervisors, and relief supervisors were trained and certified to be able to identify suspicious behaviors in individuals whom may be working under the influence of substances. If suspicious behavior was recognized, two trained and certified facility representatives observed and communicated with the individual. If both facility representatives agreed the individual was under the influence of a substance, the individual would be subjected to a drug and alcohol screen.

In late 2014, the facility was forced to add another policy change as several employees admitted to using synthetic urine to pass a substance abuse screen. Due to the information provided, the facility added observed substance abuse screens, where a facility representative or third party person enters the restroom with the individual. This is to ensure the sample was accurate. The behavior based safety program was implemented, training was conveyed to all employees, and the safety committee grew to twenty active members.

Methods

The incident and accident data at this facility was gathered from the Human Resource and Safety Departments from 2001-2014 and eight months of 2015. Incident and accident data for each of the years were analyzed and categorized into sections based on the company's

implementation of revised drug and alcohol policies and the implementation of a behavior based safety program.

Once the data was gathered, each year was analyzed and placed in tables to identify how many employees were subjected to substance abuse screens. The substance abuse policy had several changes throughout the studied years, where as a behavior based safety program was being developed and implemented throughout these years.

The type of incidents and accidents at the facility ranged from slivers to amputations and falls. There was no prevalent information on the behaviors of the employees until the implementation of the behavior based safety program in 2014, where it is noted the majority of the incidents and accidents were caused from behaviors such as eyes on task and line of fire.

Results & Discussion

A total of thirteen individuals in 2011 were subjected to a pre-employment drug screening (see Table 1). Of the thirteen screens, two individuals failed the pre-employment drug screening; one for alcohol and the other for substances. The individuals who failed were unable to obtain employment.

In 2012, nine employees screened for substances between pre-employment and post incident and/or accident (see Table 2). Five pre-employment screens, and four post incidents and/or accident screens were conducted. Of the nine screens, one individual failed the post-accident substance screen for alcohol. This individual chose to seek treatment and is currently employed at the facility.

In 2013, twenty-three substance abuse screens were conducted between pre-employment, post incident and/or accident, and random screens (see Table 3). Eight pre-employment screens,

thirteen incidents and/or accident screens, and two random screens. Of the twenty-three substance screens; two failed a pre-employment screen and was not able to obtain employment, five failed a post incident and/or accident substance screen, and two failed a random drug screen; five failed for alcohol and four failed for substances. The individuals who failed the drug screens were given the option to seek treatment; four of the five individuals chose to seek treatment and are still employed at the facility.

Nineteen individuals were screened in 2014 between pre-employment, post incident and/or accident, random, and reasonable cause (see Table 4). Of the nineteen screens; one failed pre-employment and was unable to obtain employment, five failed a post incident and/or accident substance screen, and one failed a random. Of the nineteen occurrences, four failed for alcohol and three failed for substances. The individuals who failed the drug screens were given the option to seek treatment, and are still employed at the facility.

A total of fifteen substance abuse screens were conducted in 2015, six pre-employment screens, five post incidents and/or accidents screens, three random screens, and one reasonable cause screen, all of which were observed screens (see Table 5). Of the fifteen substance screens, no individual failed.

The results of continuous improvements to the facilities substance abuse policy between 2011-2015 did not show a direct correlation between incident and accident rates (see Figure 1). Studies have shown it can take years for a behavioral based safety program to show a positive effect on the incident and accident rates (Smith, 2007). When behavior based safety was first introduced, the system was thought of as an all encompassing solution. Decades after, companies lost faith in the system because of the amount of time and money the system requires (Smith, 2007). However, a behavioral based safety system is just a part of the solution to a safer

work place (Geller, 2015). This is due to a few obstacles companies have to overcome in order to be successful (Geller, 2015). Geller (2015) lists these obstacles as: failure to teach all principles to each company employee, lack of ownership & involvement, invisible management support & process measurement, and mixing goals with purpose and mission.

Conclusion

Incident and accident data at a single lumber facility in the United States were reviewed in order to determine if the implementation of drug and alcohol screenings, and behavior based safety programs had any relation to incident and accident rates. The facility was examined to determine the answer to a specific question: did the implementation of drug and alcohol testing as well as a behavior based safety program have an association with the number of incidents and accidents over a four year and eight month period?

Data from 2011-2014 and eight months of 2015 were evaluated and categorized into sections based on developing policies and procedures. The substance abuse policy underwent several updates, and a behavior based safety program was being developed and implemented during the studied years.

The data suggest there was no positive relationship between the implementation of substance screen and incident and/or accident rates. As the screening programs were being implemented during the 4.75 year period, the number of incidents and accident actually increased. The number of positive substance screens at this facility does suggest substance abuse may be impacting the overall health, safety, and well-being of employees. Future analyses should be performed to further assess the effectiveness of these intervention measures, as many intervention measures take several years before quantifiable effects may be observed

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Appendix A

Table 1

2011 Pre-Employment Substance Screens

2011	Pre-Employment Substance Screen	Failed: Alcohol	Failed: Substance
Employees Screened	13	1	1

As illustrated in Table 1, there were thirteen individuals who were subjected to a pre-employment drug screening. Of the thirteen screens, two individuals failed the pre-employment drug screening.

Table 2

2012 Substance Screenings and Incident and Accident Statistics

2012	Pre-Employment Substance Screen	Post-Accident Substance Screen	Failed: Alcohol	Failed: Substance
Employees Screened	5	4	1	0

As illustrated in Table 2, there were five pre-employment screens, and four post incidents and/or accident screens. Of the nine screens, one individual failed the post-accident substance screen.

Table 3

2013 Substance Screenings and Incident and Accident Statistics

2013	Pre-Employment Substance Screen	Post-Accident Substance Screen	Random Substance Screen	Failed: Alcohol	Failed: Substance
Employees Screened	8	13	2	5	4

As illustrated in Table 3, there were eight pre-employment screens, thirteen incidents and/or accident screens, and two random screens. Of the twenty-three substance screens; two failed a pre-employment, five failed a post incident and/or accident substance screen, and two failed a random drug screen.

Table 4

2014 Substance Screenings and Incident and Accident Statistics

2014	Pre-Employment Substance Screen	Post-Accident Substance Screen	Random Substance Screen	Reasonable Cause Substance Screen	Observed Substance Screen	Failed: Alcohol	Failed: Substance
Employees Screened	6	10	2	1	5	4	3

As illustrated in Table 4, there were six pre-employment screens, ten incident and/or accident screens, two random screens, and one reasonable cause screen. Of the nineteen screens; one failed pre-employment, five failed a post incident and/or accident substance screen, and one failed a random.

Table 5

2015 Eight Months Substance Screenings and Incident and Accident Statistics

2015	Pre-Employment Substance Screen	Post-Accident Substance Screen	Random Substance Screen	Reasonable Cause Substance Screen	Observed Substance Screen	Failed: Alcohol	Failed: Substance
Employees Screened	6	5	3	1	15		

As illustrated in Table 5, there were six pre-employment screens, five post incidents and/or accidents screens, three random screens, and one reasonable cause screen.

Appendix B

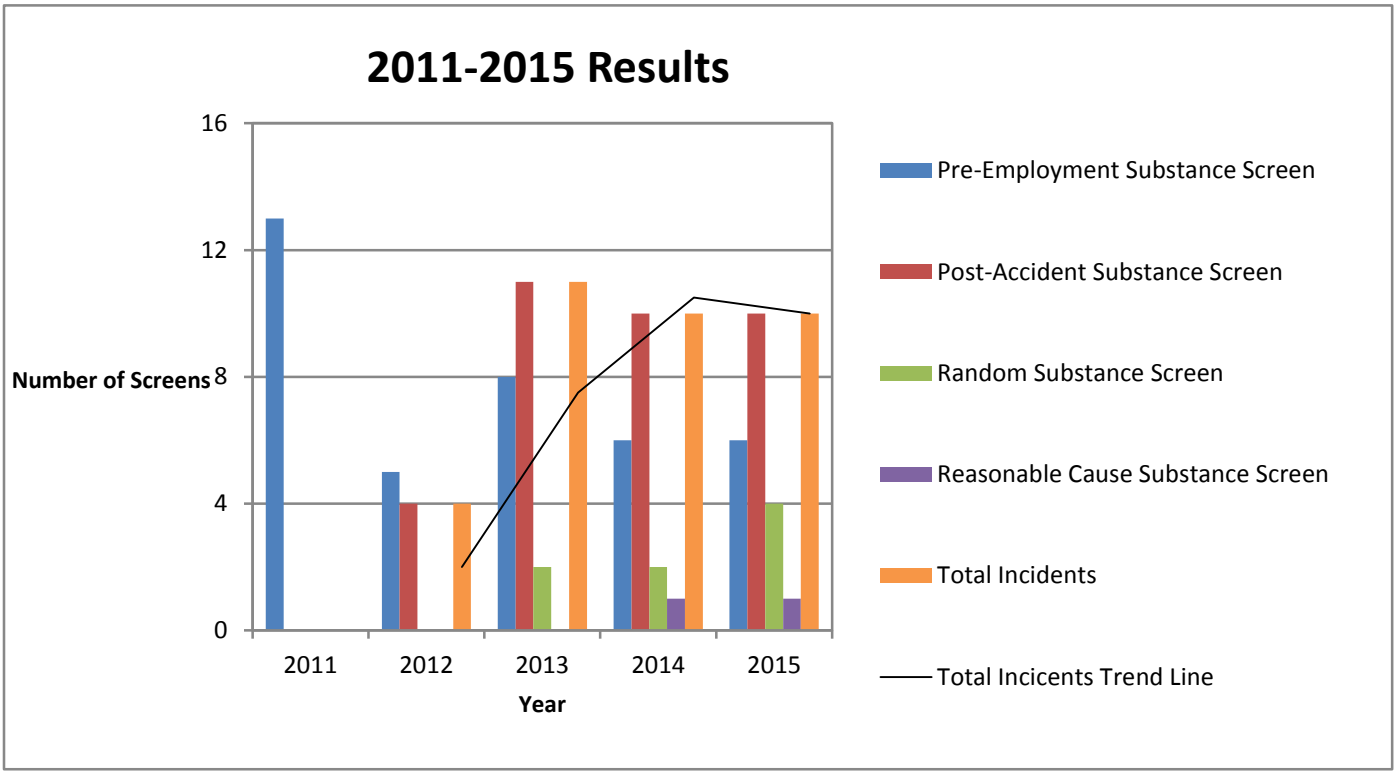

Figure 1

2011-2015 Bar Graph and Trend Line

As illustrated in figure 1, the results of continuous changes to the facilities substance abuse policy.

Appendix C

RIC Program

Participants
Date

Work Area: SM SM EDGER PL BOILER KILNS SHOP/FAB SHOP YARD ELECTRICLA MAINTENANCE

Safety Behaviors

	Checked Yes	No	N/A
Line of Fire			
Pinch Point			
Eyes on Path/Eyes on Task			
Ascending/Desending			
Walking Working Surfaces			
Lifting/Lowering			
Twisting/Turning			
Pushing/Pulling			
Ergonomics			
PPE			
Housekeeping			
Communication			
Tools & Equipment			
Lockout/Tagout			
PIT Pre-Op			
Other			

Safety Conditions

Health & Safety programs and policies available			
SDS available			
Fire extinguishers charged and checked			
Steps/Ladders			
Hazard signs posted			
Secondary containers labeled			
Exits marked and clear of obstructions			
Restrooms/Breakrooms clean			
First aid kit stocked			
Electrical panels			
Protruding shafts			
Relief in tips of air nozzles			
Lighting conditions			
Barrier chains in place			

The facility RIC program focuses on behaviors and conditions, in the form of a hazard recognition sheet.