



@ Your Service

Vol. 3 No. 3



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In just a few short months, ASSE will celebrate its 100th anniversary during [Safety 2011](#). What a great time to be involved with ASSE and our Service Branch. How often do we get to be involved in such a big milestone?

The Service Branch has been busy making plans, and we hope to see you in person in Chicago. Here are the Branch events and your opportunities to mingle and meet our members. And even if you cannot join us this year, an upcoming webinar will be of great value to anyone who deals with slip, trip and fall prevention.

Service Branch In-Person Meeting

The Management Practice Specialty will host a joint meeting with the Service Branch on Sunday, June 12, 2011 from 6:00-8:00 pm at the Hyatt Regency Chicago (151 E. Wacker Dr., Chicago, IL). Consult your program guide or hotel directory for the exact meeting room number or follow the signs. If you plan to attend the conference, please try to make it to our meeting. We will discuss current projects, future objectives and do some networking.

Service Branch-Sponsored Sessions

Session 506: Sustaining and Leveraging High-Impact Ergonomic Improvements (Monday, June 13, 10:45 am-11:45 am) by Bob Button, Safety in Motion, Inc. and Bob Howarth, Disneyland Resort.

In this session, get a behind-the-scenes look at how Disney sustains and leverages ergonomic improvements to achieve even more safety and economic benefit.

Session 649: 7 Keys to Preventing Slips, Trips and Falls (Tuesday, June 14, 3:00 pm-4:15 pm) by David Natalizia, Dynamic Safety, Inc.

This session will cover seven essential principles to prevent these injuries and incidents and will look at real-world examples of issues and solutions.

Also stop by our kiosk in the Exhibit Hall to say hello or stop by the Council on Practices and Standards Booth for more information.

[Gail House](#), CSP
Service Branch Chair

Welcome New Members!

We want to thank everyone who remained a loyal member of the Service Branch throughout 2010 and welcome the following members who recently joined.

- Kathleen Bruss, Ethicon (Johnson & Johnson)
- Kelli Cavaliero, Walt Disney Parks & Resorts
- David Crowley
- Michael Curry, Walt Disney Parks & Resorts
- Margaret Felberg, Walt Disney Parks & Resorts
- Scott Galas, Walt Disney Parks & Resorts
- Karen Gardella
- Teri Hoover
- Brittany McCall
- Michael Miller, Aramark Corporation
- Anita Muller
- Jim Nelson, Target Stores
- Geoffrey Peckham, Clarion Safety Systems
- Larry Platt, Wal-Mart Stores
- Joleen Valentine, Walt Disney Parks & Resorts
- Elisiona Valle, Wenner Bread Products Inc.
- Paul Wheeler, Princess Cruises
- Billy Williamson

Discounted Webinar

The Service Branch is sponsoring a webinar in April. As a member of the Service Branch, you will receive a discounted rate of \$50 (up to a \$95 value). This is a great member benefit, so please be sure to take advantage of it to make the most of your membership. Click [here](#) for complete details.

Webinar: Slip, Trip & Fall Prevention in the Restaurant Industry

April 27, 2011 (11:00 am-12:00 pm CST)

- Presented by David Natalizia, Dynamic Safety, Inc. and Devin Lindsey, Brinker International
- Earn .1 CEU
- Access the archived webinar for 30 days, anytime/anywhere
- Receive a FREE electronic copy of the [Standard for the Provision of Slip Resistance on Walking/Working Surfaces \(ANSI/ASSE A1264.2-2006\)](#) (up to a \$69 value)

To receive the discounted rate, simply go to the [cart](#), register as an ASSE member and enter the discount code e-mailed to you on March 28 in the "Registration Discount Code" field. If you need the discount code resent to you, please e-mail Krista Sonneson at ksonneson@asse.org.

Meet Paul Wheeler

Learn about this new Service Branch member's interesting career



What is your current position?

I am the Director of Fleet Safety and Occupational Safety for Princess Cruises.

We own 17 cruise ships and employ roughly 25,000 crew members. We sail from the temples of the Far East to the glaciers of the Alaskan North, from the great cities of Europe to the grand landscapes of Australia.

Why did you join ASSE's Service Branch?

I joined the Service Branch because I believe many opportunities exist to share best practices and to help each other within the service industry. This particular branch is made up of members with a wealth of knowledge and experience. I look forward to being an active member who contributes and also benefits from the membership. I have been looking for a likeminded group for some

time, and I believe I have found what I was looking for.

How did you enter your current job?

I started in the service industry 12 years ago as a Safety Manager with Royal Caribbean Cruise Lines based in Miami. I moved from there to Carnival Corporation as a Health, Environmental, Safety and Security Manager and spent the majority of my time auditing Cruise Lines within the corporation. Five years ago, I moved to Princess Cruises.

Very few people with my background and experience are in the cruise ship industry, and this was a natural progression for me. As the first-ever Occupational Safety Director at Princess Cruises, I felt that it was a wonderful opportunity to build an occupational safety system from the start. In the five years that I have been here, we have driven our major accidents down by more than 60%.

Why did you choose this type of work?

The variety of work covered within health and safety is what attracted me to a career in this field. It has not let me down. In more than 28 years, I have experienced working in sewers, climbed telecom towers, flown across the world and sailed the seas helping to make the workplace a safer place.

What special skills or qualities do you need for your job?

Health and safety so often are tied in with other areas of expertise that over time I have developed skills as an ISO Lead Auditor in occupational health and safety, environment and quality systems. I have also gained public health knowledge through CDC in Miami.

I developed my maritime knowledge over time by attending short courses and by gaining experience onboard ships. In my career, I have always remained flexible, and this has been an invaluable asset during my career. A

few occupational safety regulations apply to international shipping so we tend to apply U.K. standards and regulations as best practice.

Why did you choose to pursue the NEBOSH certificate/diploma at 23?

Part of my career development was to eventually gain NEBOSH qualification for the position I held, which at the time was a Trainee Safety Officer. The qualification was perceived as difficult to attain as both of the colleagues above me had just failed their exams. I soon realized while I was enrolled in the course that I was the youngest person in the class.

I think the start of the NEBOSH qualification brought about a change in the safety profession. It brought a means of recognition of the knowledge and skills that you had learned and so it brought more respect to the profession and in turn attracted younger people.

What are the particular challenges in your work?

The challenges in my work are mainly that our business runs 24 hours a day in more than one continent at the same time. It means that my e-mail inbox always has messages to be read at any time of the day.

A workforce made up of 50+ nationalities also brings its challenges. For some first-time crew members, safety is a totally new concept so we take extra of them by conducting safety training before they fully take up their role, and we assign them a "buddy" to look after them for the first few weeks.

What are your main responsibilities?

My main responsibilities are:

- Directing a team of safety professionals



- Providing an advisory support service to senior management
- Designing and implementing safety initiatives with a goal of reducing shipboard accidents and incidents

Meet Scott Galas

Learn about this new Service Branch member's interesting career



Please provide a brief description of your professional background.

I have been in the safety field for more than 17 years and have been an ASSE member for six years. I am currently the Treasurer of ASSE's Central Florida Chapter.

Why did you join the Service Branch?

I joined the Service Branch for networking opportunities. It is a great way to meet new people from all over with common interests. Working at Disney gives me the opportunity to network with people in the retail, restaurants and entertainment fields.

Why did you choose to work in SH&E?

I entered the safety field when a friend of mine from high school called me and said "You have to come work with me." Her boyfriend owned a safety supply distributorship. I worked on the distribution side of safety for a while and then moved to the sales side.

After eight years of traveling, it took its toll, and an opportunity came up to work in the safety department at a local theme park where I was able to apply all of my experience.

Where do you currently work?

I work for Walt Disney Parks and Resorts in the safety and health department. My responsibilities include animal programs and recreation lines of business; the water parks and mini-golf areas and the ESPN Sports Complex.

What special skills or qualities do you need for your job?

Patience and flexibility. Working in the safety field has taught me that there are times when you sometimes need to be a police officer and other times where you get to be a cheerleader.

What challenges do you encounter at work?

Each area has its own unique set of challenges. Random guest actions can be extremely challenging when working with water parks; the Sports Complex has challenges from unique injuries at sporting events; the most challenging would be working with animal programs—animals have a mind of their own and we cannot always predict their behaviors.

Employee Safety Perception Surveys: Key Steps in the Development & Analysis of Results

By Michael O'Toole, Ph.D. & David Nalbone, Ph.D.

Management's Ongoing Challenge

The fundamental management process is to allocate available resources to a productive end. In the case of safety and health, management needs to identify how best to allocate limited resources to ensure the fewest mishaps that result in injuries to employees, damage to equipment or the environment. Research suggests that the safety management system has the most significant impact on injury rates (Carder, 2003; O'Toole, 2002). Other research (Erickson, 2008) involving safety management

systems has suggested the most critical factor influencing successful safety results is that of management's demonstrated support of safety.

Zohar (1980, 2005) used employee safety questionnaires to identify the relative importance of specific safety factors in several industrial settings in Israel. Bailey (1997) used the Minnesota Safety Perception survey to identify factors that positively contributed to injury reduction in the railroad industry as well as in several other industries. In Bailey's follow-up study, the results suggested that at facilities with low injury rates, the employees' perceptions of critical safety factors were highly positive. In contrast, at facilities with a relatively high injury rate, employees' perceptions of those same critical safety factors were found to be low.

Perceptions, like attitudes, have been recognized as an important factor in safety. Research in this area has suggested that when measured, perceptions can predict the likelihood of certain behaviors (Ivers, et al., 2009). The importance of this factor is especially critical where employees have little or no direct supervision. The employee is making important choices and decisions about safety rules, practices and procedures. If perceptions about safety are low, there is a greater chance that the employee may take a shortcut or engage in some other at-risk behavior that can lead to an injury.

Others have suggested that employees' safety-related perceptions are predictive of the organization's safety results (Carder, 2003; O'Toole, 2007; Seo, 2005). Where the employees' perceptions of the organization's safety climate is low (negative), the organization's incidence of injury tends to be higher than at those organizations where employees' safety perceptions are high (positive). These results clearly are supported (Bailey, 1997).

Once an organization decides to go forward and use an employee safety perception survey, it faces several challenges. The first decision to make is whether to use an off-the-shelf instrument or to develop the survey locally. Each approach has strengths and weaknesses inherent with the choice.

The first issue facing an organization considering the use of an employee safety perception survey is that of reliability or the assurance of repeatable results (also known as precision) with the use of the same instrument in the future. If the survey does not produce repeatable/stable results over time, the use of the survey instrument becomes suspect. Ideally, the organization will use some or all of the results from this survey to make changes to improve the existing safety process. With a less than reliable survey instrument, valuable resources may be wasted on activities with less than desired outcomes.

Reliability refers to consistency of responses, in terms of both the people providing those responses and over time. Questions that are unclear or for which there are not likely to be a wide range of responses (e.g., when there is a socially desirable or "good," answer) are likely to hamper reliability. Using a broad range of questions—as opposed to a more narrow range or just a few questions—also tends to improve reliability.

The second issue is the method used to ensure that the survey instrument is valid; that is, that the survey accurately measures what it is intended to measure. If the survey is not validated, then the results may not be very useful and will likely result in wasted resources to address gaps or weaknesses in the safety management system identified by the survey. Those gaps may or may not reflect the actual state of the organization's safety processes, resulting in the potential waste of resources.

The third issue is related to the size of the sample to be used. In smaller facilities, having the entire workforce complete the perception survey may be appropriate; in larger facilities, a sampling procedure may be developed to ensure adequate representation of all-important groups that are surveyed. The large organization could still elect to have all employees participate in the safety perception survey.

The process of developing and testing a survey instrument to ensure that it is both valid and reliable is time-consuming and resource-intensive. To use an off-the-shelf survey, the end users pay for the value of knowing that they are purchasing a valid and reliable instrument. However, this advantage must be weighed against the disadvantage of possibly not being able to customize the survey instrument to one's particular interests or needs.

Several challenges face the organization that elects this path, the first of which is identifying the constructs or factors the survey is to measure. Although the survey is intended to measure employees' perception of safety, this broad construct is better measured identifying several more specific constructs, such as employees' perception of management's commitment to the safety process; employees' perceptions of their fellow employees' commitment to the safety process; the employees' perceptions of the effectiveness of safety-related training; employees' perceptions of their involvement in the organization's safety processes and so on.

Question Development

Once the constructs have been identified, the organization has the challenge of developing questions that measure those constructs in an appropriate way. The wording of questions must be able to elicit a meaningful response without suggesting or guiding the participant to a "correct" answer, while still allowing for a range of responses to ensure enough

variability among responses to be able to detect any significant effects. Lastly, the organization needs to possess personnel with some statistical knowledge to ensure that the survey measures the intended constructs in a way likely to generate meaningful and useful results.

A common problem among first-time survey developers is that they develop a set of questions but do not simultaneously keep in mind the analytical strategy that will be required to make use of the data or of how the analysis's results will assist key decision makers in deciding what changes (if any) are needed to the safety programs or processes. Failure to keep such issues in mind can lead to a significant amount of wasted time and effort on an instrument with little redeeming value.

Based on the authors' past experience, management teams tend to become preoccupied with why all employees or a specific subgroup may have a particularly low perception of a given measured factor. They will then set about on a course to convince employees that their perceptions, at least of safety, are wrong.

Perceptions are similar to attitudes and are difficult to change when attacked head on. It is for this reason that attention within the data analysis should direct efforts toward identification of how employees may have a less than positive perception of a given factor. After all, the perception may be accurate, even if it is difficult for management to hear. From there, it may be possible to create a remedy to improve the perception of the low-scoring factor.

A second concern is a fear that the survey will point out poor practices of supervisors or managers. Although issues of management style or approach may drive a particular set of perceptions, that knowledge may provide senior managers the opportunity to provide resources in the form of training, education



and mentoring to alter or improve the behaviors or practices of concern.

Great care must be taken in ensuring the respondents' confidentiality, and this often begins with a well-crafted memo or cover letter outlining the value of employees' input. The message needs to be conveyed that to improve safety procedures or processes honest responses are a necessity (as opposed to those that sound like the "right" answers), and a strong assurance of the confidentiality of all responses will go a long way to that end.

A key aspect of the use of such surveys is providing feedback to managers as well as to employees. If employees do not receive a general summary of the results or to what purpose the survey results will be put, they may be less inclined to take the time to fill out such surveys in the future and may also be suspicious of the survey's purpose. Good feedback provides employees with a general, nontechnical explanation of the findings, a summary of any changes to be implemented as a result of the findings and a chance to express any concerns or questions about the survey process or the results. Providing employees a chance to have their views heard (and reflected back to them) should help improve employee buy-in to the safety perception survey process.

Conclusion

The safety profession and government regulators have more recently recognized several factors that increase the success of an organization's safety process. One of those is management's visible support of the process (Bailey, 1997). Using a tool, such as an employee safety perception survey, and reacting to the results in a visible and positive manner send a powerful message to the workforce.

In addition, it has been suggested (Carder, 2003) that the more employees are meaningfully engaged in the safety and health process, the more successful that process is,

especially in relation to the number and severity of injuries. Using an employee safety perception survey, the organization taps its best resource for hazard identification. In addition, when the organization addresses these issues in a positive manner, it attends to issues of immediate importance and relevance to the employees at risk.

A final aspect of the survey cycle is to reevaluate the entire process after it has been completed. What was learned, and what is still unknown? What impact did changes made to the information gained from the initial survey have on measurable outcomes? What improvements can be made to the process to make it more effective or efficient? Keeping careful notes of the results of this reevaluation can be useful, especially if there is a significant time lag between the end of one survey cycle and the start of the next one. This tool is intended to drive continuous improvement and should not be considered a one-shot fix.

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David P. Nalbone, Ph.D., is an associate professor of social psychology at Purdue University Calumet. His teaching interests are in introductory and social psychology, research methods and statistics and in stereotyping and prejudice. His research interests are in terror management theory applications to political and social issues and in assessment issues in education and organizations.

Michael F. O'Toole, Ph.D., is an associate professor of safety science at Embry-Riddle Aeronautical University. He currently teaches courses in occupational safety and health. His primary research interests are in the areas of safety climate, behavioral safety, corporate culture and safety management systems.

Prior to joining Embry-Riddle, O'Toole worked for 23 years in private industry, holding a variety of positions in human resources and two stints as Corporate Director of Health and Safety for multinational corporations. He also held the rank of associate professor at Purdue University and taught safety-related classes for nine years. He is active in trade and professional organizations dealing with

regulations affecting industry. He actively consults for a variety of industries and businesses around the country.

O'Toole holds a B.A. in Psychology, an M.A. in Industrial Psychology from Western Michigan University, an M.S. in Safety Engineering Technology from Northern Illinois University and a Ph.D. in Public Health from the University of Illinois at Chicago.

Now Accepting Safety 2012 Speaker Proposals

All Service Branch submissions should be sent to ksonneson@asse.org by July 1, 2011.

Honoraria: Individual speakers (1-2/session) receive a full complimentary conference registration. Group/panel presenters receive a complimentary registration for the day on which they speak and a reduced rate for the balance of the conference. Travel, lodging and meal expenses are the speaker's responsibility.

Submissions: The subject line should read "ASSE 2012 - [Sponsoring Practice Specialty - Topic Area]." Receiving sponsorship from your practice specialty for submissions is a great membership benefit so please take advantage of it.

Presentation Description: Describe your presentation and specify expected learning outcomes for attendees. Indicate the session level. Levels are evaluated as follows:

Basic: 2 to 5 years of experience.

Intermediate: 6 to 10 years.

Advanced: 10+ years.

Executive: for senior management.

Maximum length is 3 pages.

Biographical Data & References: For each speaker, include name, address, education, current position, certifications, designations,



qualifications and relevant speaking experience. List phone numbers for three references. List noteworthy publications from the past three years. Maximum length is 3 pages.

Brochure Description: Provide a 50-word description of the presentation for inclusion in marketing materials.

Ad Quotes: Please include personal quotes on why people should attend your session for inclusion in marketing materials.

Length of Presentation: 1 or 1¼ hour (to include 15 minutes for questions).

Multiple Submissions: Two proposals maximum per speaker. Complete a separate application form for each submission.

Acceptance: Notification of acceptance will be mailed by the end of November.

Proceedings Paper: Speakers must submit a paper based on their presentation for the proceedings provided to conference attendees. Details on preparing the proceedings paper are provided upon selection.

Volunteer Opportunities

Volunteer opportunities within the [Service Branch](#) will help you sharpen your existing skills, develop new skills in a risk-free environment, expand your horizons, become more motivated and energized about safety, increase your visibility within the profession, boost self-satisfaction and demonstrate workplace and leadership skills that can be documented on your resume. Please contribute in any capacity that fits into your life and set of demands. If you are interested in volunteering, please [contact us](#).

Focusing on the Right Issues Reduces the Cost of Risk

By William H. Barbarow, B.S. CSP, ALCM

What is the Value of Safety?

Many companies look at safety as a compliance issue focused on their workers' compensation modifier and OSHA compliance. Management does not perceive that they or their organization derives value from the safety program; therefore, they are not directly involved with the safety process. For management, success is defined by income, profitability and avoidance of fines and citations by governmental organizations. They look at employee injuries and guest injuries as unavoidable and a cost of doing business. They feel that their employees likewise perceive no benefit from safety information or safety meetings. Management views their primary role as to run their business to maximize profits and to instruct employees on what they are to do. This represents a top-down management style.

This environment is not devoid of safety activities. There may be the presence of safety committees, self-inspection programs and accident investigations. In this environment, loss frequency does not improve over time; there are no accountabilities for safety results for managers or employees. Often a high level of trust does not exist between management and labor. Upper management is not directly involved with safety; it is a middle management or a maintenance function. Management actions are reactive post-loss or after an equipment breakdown. An expressed interest in safety may exist, i.e., safety is #1. This is an empty slogan; there are no safety goals, strategies or tactics to attain positive results. This sounds typical of many businesses.

This article illustrates how safety can be a profit center for your organization, improve the value of your brand and help you retain your most important asset—your employees. A



case study of a hotel will illustrate these concepts.

Case Study

Background

The case study took place in a resort hotel with 450+ guest rooms; it is a nationally flagged facility with a AAA rating of three diamonds adjacent to a major theme park resort attraction. The hotel has 325 employees, banquet facilities, bus/van transportation to a local attraction, multiple restaurants, pools, lounges and a fitness center. They had a safety program and a management safety committee and conducted accident investigations. Hotel security is managed by an onsite staff. When employees were injured, their injuries were reported to the insurance company. From the outside, it looks like a hotel one would want to work at or to use when traveling.

A closer look revealed some troubling signs. Employee turnover was more than 25%, and they were experiencing 60 OSHA recordable employee injuries (20 lost-time injuries) a year. The direct workers' compensation claim costs were more than \$400,000 annually. The total cost for workers' compensation injuries exceeded \$2,000,000 a year. The ineffective safety culture affected other areas of the hotel operation.

A serious guest injury occurred on one of their mini buses. A young guest (under the age of 15) entered the bus but remained on the first step inside the bus, by the door. The driver knew the guest needed to come farther inside the bus and stand behind the driver's seat by the white line on the floor. The driver spoke to the passenger, but the person did not understand the driver due to a language barrier and did not move. The driver decided to take off because he perceived keeping the bus on schedule as his primary goal. The vehicle proceeded down the street and the driver made a quick turn. The passenger was leaning against the door and was ejected from

the bus. The young person sustained serious head injuries (the cost was in the hundreds of thousands of dollars). The driver received verbal operating instructions for the vehicle when he was hired. There was no follow-up training or regularly scheduled safety instruction, nor did he receive any feedback on his performance. He did not feel accountable for his safety or for the safety of his passengers.

Safety was a word people used at the resort, but it had little meaning. There was no accountability for safety performance at the management or employee level. The organization's culture did not embrace safety as a value.

Problem Identification

At this point in time, the author was introduced to the account. As a loss control representative for their insurance company, he was assigned the responsibility to determine what was driving these unacceptable financial results and if there was an opportunity to work with the client to improve their results and to lower their claim frequency and costs. His company needed to know if this account was one worth keeping. Their safety results were negatively impacting the company's profitability.

The author initially met with the middle manager who was responsible for coordinating their safety program. The author explained why he was there and asked if they were interested in improving their safety performance. The coordinator agreed to allow the author to take a closer look at the hotel's operations. The coordinator was not optimistic that the author would be able to assist them in meaningful improvement in their results.

The author spent a few hours observing their operations, employee/manager and supervisor communications. He had a closing meeting with the coordinator and requested a future meeting with the hotel's leadership team to



explain his purpose, observations and thoughts on how to improve their results. The coordinator agreed.

The author started the leadership meeting by asking them the following six questions:

1. What is your business plan for this hotel?
2. What is your expectation for your guests' experience during their stay at your hotel?
3. What do you expect from your employees?
4. What is your profit from a nightly room rental?
5. How does your safety program benefit your hotel and help you achieve your business goals?
6. What are your costs for your current safety results in terms of insurance premiums and uninsured costs (employee turnover, overtime, negative publicity, guests' experiences, etc.)?

The management team had a business plan to achieve a AAA four-star rating. The cost of their ineffective safety process was in the millions. A white board was used to list their answers and quantify their costs, including the number of room nights necessary for them to break even. No one on the management team realized the negative impact safety had on their operating efficiency and their bottom line. The costs were staggering.

The management team sprang into action, which was great to see. After some discussion, they agreed to let the author benchmark where they were at that time. The plan was to meet again after the operational review was completed to discuss the analysis and conclusions. From that point, a visualization of where they wanted to be in the future could be developed. A new vision for the future would strategies and tactics to be built to attain that future state. Milestones would then be established to mark progress.

Analyzing the Current State

The analysis phase started with a review of their workers' compensation claim results

because they represented their highest claim frequency and cost. From there, the following were analyzed:

- A. Physical and operational hazards in the hotel
- B. Employee behaviors
- C. Existing management programs and procedures
- D. Employee support for the safety program

The primary causes of employee injuries were slips, trips and falls and material handling. The departments with the highest claim frequency were:

1. Food and beverage.
2. Housekeeping.
3. Maintenance.

Their workers' compensation claim results painted a gloomy picture when compared to hotel industry averages. Their total number of workers' compensation injuries was 200% of hotel industry averages, their lost workdays represented 162% of industry average and the no lost-time injuries were 300% of industry averages. These results were dismal and not reflective of an organization that aspired to be a four-star resort.

The hazard analysis included a review of hotel operations, written task procedures and observing employees at work. Hazards included:

1. Poor housekeeping.
2. Lack of hazard awareness by both management and employees.
3. No uniformity on how tasks were performed
4. Poorly designed workflows
5. Inconsistent use of personal protective equipment (PPE).

Sample observations included blocked exits, storing containers filled with liquid on top of electrical equipment, employees lifting large five-gallon containers above shoulder height to pour out a quart of liquid, rubber anti-



fatigue mats missing/improperly aligned/or in poor repair, housekeepers standing on the edge of a tub to clean the top row of tile because stools were kept in storage closets and not on service carts, air compressors located inside a work area, mold growing on sidewalks and patios and a laundry that required the employees to operate small-capacity washers 23 hours a day (the ironing could be completed in only 12 hours).

A program review of management and safety procedures and protocols revealed that many of the fundamental components were missing, incomplete or were never formalized. Key findings included:

1. Safety goals existed but no accountabilities were established nor were any monies or resources budgeted to attain these goals. The feeling within the management team was safety was achievable if good common sense was used. According to educator and consultant Aubrey C. Daniels, common-sense knowledge is vague; scientific knowledge is precise. Common sense cannot be counted on to produce consistent results; application of scientific knowledge yields the same results every time.
2. The safety committee was solely a management activity and responsibility. After the safety meeting, employees were told the results of the meeting and what they needed to do.
3. New hire orientation was a human resources function done informally. Department-specific training (safety procedures, hazard identification, emergency procedures and mandated training on bloodborne pathogens, PPE, material safety data sheets, hazard communication, etc.) was inconsistent.
4. Self-inspections were a management function focused on physical aspects of the operation, such as a fire extinguisher being hung, presence of safety glasses, a guard on a

grinder or the existence of an exit sign. The audits did not focus on utilization issues, such as how the guard was adjusted, if employees knew how to operate the extinguisher or how employees performed their tasks, such as did they lift properly, did they use PPE when needed or was the correct PPE used and properly adjusted?

5. Accident investigation procedures varied by department. The theme was accidents and incidents are acceptable and largely due to employee carelessness. The loss causes, beyond carelessness, were not identified; therefore, the injuries continued to happen over and over again.
6. Workers' compensation claims management lacked structure. A local clinic was used to treat injuries, and no return-to-work strategy was in place with the clinic or with hotel management. In fact, many managers did not want an injured employee back to work until s/he was fully recovered. The clinic relied on injured employees to verbally communicate their job descriptions. Often the job duties were relayed incorrectly. Members of the clinic had never visited the hotel to observe task procedures or to discuss task modifications and treatment strategies.
7. No first-aid logs were maintained. Incidents were never investigated. The level of first-aid training varied by department.
8. Wellness and employee assistance programs did not exist.
9. Employees received inconsistent safety training. The training materials and presentation varied by supervisor. The employees seldom applied the skills and knowledge they possessed.
10. Communications were ineffective at all levels of the organization. This makes goal-setting, teamwork and meeting expectations all but impossible.



Behavioral analysis was undertaken by observing employees performing their duties and by leadership providing coaching or feedback to their staff. Management seldom responded to employees who performed their tasks correctly or incorrectly. Examples of incorrect behaviors included mopping floors and not using "Wet Floor" signs, individuals lifting heavy objects alone, lifting materials with an incorrect posture, running (not walking) or using a fire extinguisher as a coat rack. Management responded negatively when an injury or property damage incident occurred. Their actions were reactive. No one focused on accident prevention. Managers looked to blame their employees for their own injuries.

The hotel did not have a safety culture. The human resources department was the hotel disciplinarian. Managers did not have meaningful two-way discussions with their staff. They talked at the employees. The employees did not respond when they were talked at; they were intimidated and felt as though they had little value. Managers and supervisors did not function as effective coaches according to E. Scott Geller's definition of coach, which stands for caring, observing, analyzing, communicating and helping. Neither the employees nor managers felt any responsibility for safety.

Developing a Vision for the Future

The analysis or benchmarking was presented to the executive team at the hotel. The analysis phase of this project provided a clear picture of current hotel operations and culture. The discussion phase was short in length. Everyone agreed that the current state of affairs was not consistent with the management team's business goals nor were they satisfied with the way they treated their employees. The management team had been so involved with their individual tasks and areas or responsibilities that they had not taken the opportunity to look at their operations from this viewpoint, and they were not happy with what they saw. Everyone

agreed that they wanted a safe working environment for all of their employees where hotel guests received excellent service. They agreed that their employees were their most valuable resource. They recognized that service excellence would only be accomplished when an involved staff that is properly trained and motivated executes that strategy. As Willard Marriott once stated, "Take care of your employees, and they will take care of your guests."

The vision was taking shape; safety and guest service were top priorities. The management team set a five-year goal: zero workers' compensation injuries. The managers agreed that new corporate values were needed to achieve their expectations. In the future, the culture would be built on respect of the individual and working together with a shared vision to provide their customers with excellent service while maintaining a safe environment for everyone. Now we needed to agree on an implementation strategy, tactics, accountabilities, metrics and the resources required to make this new vision a reality. The management team was impatient. Nothing worthwhile is that easy nor could an outsider change their culture.

Implementation Strategy

The employees did not trust management, and the two groups did not communicate effectively. Management was accustomed to giving orders, and the employees' response was to lower their heads and not ask questions (even if they did not understand the communication or agree with it).

Improved communication skills were essential to move forward. These skills provide foundation for trust and understanding. It was also a skill that presented a major challenge on how to be efficient and effective communicators. The hotel management team needed help. They used a consultant, a college professor, to work with them and to teach them how to listen and talk to people in an environment where feedback is encouraged

and agreement and understanding are the expected outcomes. The consultant provided them with tools so they could use their verbal skills and body language to communicate in a way that demonstrated a caring environment that fostered feedback and two-way communication.

At the same time, they brought in a third party to perform employee perception surveys. If they were to embark on a new direction, they needed to know if the employees understood the message and believed in it. The strategy was to do a benchmark survey after the announcement of the new vision and again every six months. The use of a third party to perform the perception surveys ensured that the employees had anonymity and could freely express their ideas and feelings. Survey results would be shared with both management and employees.

They wanted to announce their new vision. The focus was on the message, the process and who needed to be involved. This was a major initiative; the more stakeholders involved the better. It was agreed that successful execution of this strategy would require more than the hotel management staff, their employees and a loss control consultant. Their insurance broker, the director and physicians of their workers' compensation medical clinic, their vendors and their corporate attorney were brought in. The hotel wanted to support an atmosphere of involvement and fairness throughout the facility and to extend this theme to all organizations that supported the hotel. They were undertaking a major cultural change.

Executive leadership agreed that a statement of their support alone was insufficient—they needed to lead by example. They expected and required the same commitment from their entire management and supervisory staff. Management envisioned their hotel attaining a four-star rating, and they knew that was impossible if they delivered two-star

service that was impacted by their negative safety results and 20% employee turnover. The message to employees included a reward and recognition provision so the employees would directly share in the success of this process. There would be individual awards and group awards with incentives for improving business and financial results. The rewards were intended to give employees a reason to buy into this cultural change. Now there was something in it for them.

The Kickoff Meeting

The chief operating officer announced the new vision, Safety and Guest Service, to the entire staff. He pledged his support and involvement and that of his team and asked employees to trust them, give them their support, and most importantly, their feedback. He further stated this was not a one-time event—going forward there would be monthly communication meetings with open dialogue between all parties. He stated that employees would be involved with safety and would help develop the new department operating procedures. They had much to accomplish, but there would be established benchmarks and goals and everyone would be accountable. This was the beginning of a new era of cooperation, inclusion and respect for all employees.

The employees liked the rewards and recognition programs. Their enthusiasm was the desired effect. Management needed to keep the employees energized. They also needed to get employees involved in the safety process. Employees were immediately selected to take positions on the hotel safety committee. The safety committee now had both staff and management representatives. The committee was provided with a financial budget and a level of autonomy to accomplish results.

Achieving Success

The kickoff meeting was the first step in a corporate cultural revolution. The key ingredients to success were employee



involvement, active management participation, continuous two-way communication, treating people with respect, setting achievable benchmarks/goals, recognizing participation and progress and focusing on the positives. It was important to build and maintain momentum. They had significant hurdles to overcome. Employees did not believe management was sincere and really wanted their participation. Management built credibility by listening, taking immediate actions on employee feedback, requiring the same respect from their employees as they gave them and providing employees prompt feedback on their expressed ideas and actions.

The next twelve months were a period of rapid change in communication, enhanced employee training, hazard reduction and formalization of future goals. The evolution was dramatic. It was exciting to be part of this process of rapid change. Employees and managers developed internal initiatives to support their vision. Initiatives included:

- A. Ingredients for success
- B. Controlling workers' compensation and general liability costs
- C. Hazard identification and correction
- D. Reward and recognition
- E. Training
- F. Clinic selection specifications

Ingredients for success included:

- Maintain an ongoing passion for safety in the workplace (passion starts at the top)
- Get buy-in and support of management staff and employees
- Treat employees with respect
- Strive to reduce employee turnover
- Establish thorough hiring standards and practices
- Listen to your employee (employee opinion surveys)
- Employee incentive programs
- Reward and recognition program
- Eliminate the perception that the employer has little or no control over workers' compensation and guest injuries and costs
- Report injuries immediately internally to leadership and externally to the broker and insurance company
- Ask the injured employee to speak to the safety committee to better understand the circumstances that surround the incident
- Maintain an effective modified-duty return-to-work program
- Create and use job safety analysis in training
- Conduct periodic utilization reviews
- Conduct thorough accident and incident investigations looking for root causes and barriers to safe performance
- Analyze all employee and guest injuries, incidents, including first-aid cases to identify tasks and departments that can benefit from additional loss prevention support
- Hold regular claim reviews
- Select an insurance company that you can partner with to help you reach your business goals
- Hold managers accountable for their actions, behaviors, communications and results
- Provide training and support for the people involved in loss prevention
- Train new hires and provide annual update training
- Provide supplemental training to cover training gaps and new procedures
- Use all available resources, insurance company specialists, vendor trainers, etc.
- Develop a code of safe practices in each department, post them, refer to them daily and hold management and employees accountable to follow these practices.
- Implement a hazard identification process that includes regular self-inspections
- Implement a maintenance work order program to track and correct safety and maintenance deficiencies



- Implement an effective chemical right-to-know program
- Ergonomic awareness and response process

They controlled and reduced workers' compensation and general liability costs by:

- Making safety and guest service top priorities
- Working safely as part of the corporate culture through role-modeling, effective communications, follow-through, coaching and reward and recognition
- Establishing a return-to-work process
- Establishing and maintaining relationships with employees, guests, the insurance company, attorney, broker and medical clinics
- Ongoing training of all parties in the areas of injury prevention and cost containment
- Establishing new hiring and employee selection guidelines to match employee skills with essential job functions

Their hazard identification and correction process encompassed:

- Regularly scheduled safety audits of equipment, operations and behaviors
- Discussions at safety committee meetings of hazards and accident investigations
- Making every employee a safety manager
- Regular claim reviews to spot trends and loss development
- Report and follow up on/investigate all injuries

The reward and recognition process included:

- An employee suggestion program
- Safety bingo
- Safety door prize drawings at monthly communication meetings
- Celebration of accomplishments with a Wheel of Fortune
- An annual awards banquet
- Treating employees with respect and dignity

The training program's focus included:

- All employees trained (management and line) on business objectives, operations and safety at a corporate and department level
- Annual update training
- Safety training on hazard communication, ergonomics, eliminating slip and fall injury exposures, knife handling, etc.
- Job safety analysis
- CPR and first aid
- Fire prevention

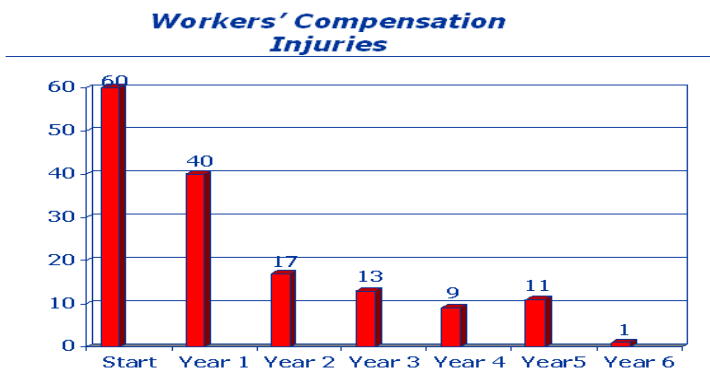
Formal clinic selection specifications included:

- Services with post-job offer health screenings
- Open utilization review
- Assistance in modified return-to-work programs
- Training employees in CPR, first aid, safe lifting practices, etc.
- Clinic staff tours of the hotel to understand employee duties and job descriptions
- Treating employees with dignity and respect and having a sincere desire to help injured employees recover and return to work
- Providing leadership with regular feedback on the process

The cultural change was possible to sustain with frequent communications (at a facility level, department level and manager/employee level) that fostered employee ownership for results, recognition of achievement and a vision for continuous improvement. Internal communications focused on the positives (employee recognition, rewards, positive feedback and interpersonal recognition). The workers' compensation injury results they achieved, six years after the process was initiated, were nothing short of outstanding. In the sixth

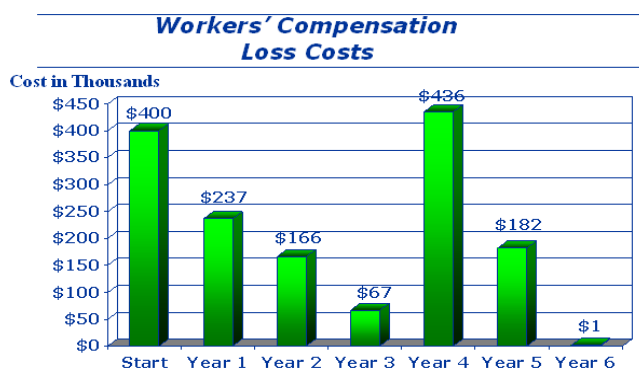
year, they had one employee injury (Figure 1).

Figure 1. Policy Year Workers' Compensation Injuries.



The cost of loss also dropped dramatically. The cost of workers' compensation claims decreased from \$400,000 annually to \$700 (Figure 2). The financial effect on the workers' compensation premium was a reduction of more than 75% from almost a million dollars a year to under \$200,000. The incentive program at its peak cost \$50,000 per year. The savings to the hotel was more than a million dollars annually.

Figure 2. Loss Costs of Workers' Compensation Injuries.



Positive Effects of the Cultural Change

An additional benefit for the hotel was the reduction of employee turnover from 25% to 3% annually. Respecting employees became a value within the organization. An example of this is demonstrated by how they resolved an issue that arose when a sports team from a

foreign country stayed at the hotel. They said and did some inappropriate things to the housekeepers. The young athletes made suggestive actions and grabbed the housekeepers. The initial response was to provide air horns to the housekeepers. Later it was decided to have them work in pairs.

Finally, the general manager became aware of what was happening. He told the head of the team that the housekeepers were to work in their rooms by themselves, as they did in all other rooms. If any person in this group said or did anything that was viewed by local management as inappropriate, the entire team would be tossed out of the hotel immediately, regardless of the time of day. The customer would also be billed for the cost of their removal and for the lost income from room rental.

The hotel was no longer a group of individuals going in 325 different directions. They were a cohesive team that worked together and respected each other. The organization's culture had evolved. Acceptable norms were different so together with safety culture behaviors changed, at-risk behaviors were no longer acceptable for an individual or a group. The staff had attained level of personal responsibility for the results they achieved.

Staff retention was an important outcome of the case study. An article in *Lodging Hospitality* stated, "One in four hotel workers do not like their jobs, and a third plan to leave before the end of 2006." Building and retaining your brand value depends on delivering quality service that provides the guests an experience that exceeds their expectations. This type of service delivery requires a highly trained, motivated and stable staff.

Two years later, workers' compensation claims were up to six with an incurred cost of \$26,000. That is still a vast improvement from where they were eight years earlier.

Adding some aspects of the Z10 standard, such as a management system to give better control and predictability of results, can be added to this case study. The objectives are to reduce hazards, risks and costs of loss. Having an organized approach to managing hazards will not only improve results, but it may also have a positive impact when an organization is involved in civil liability suits because it demonstrates corporate citizenship/responsibility.

The management system will have policies, processes, documentation and records with a feedback system to allow for continuous improvement. Implement metrics (performance standards by task, customer feedback on service delivery and peer review of task performance) to provide leading performance indicators. This type of information allows an organization to be proactive and responsive to the needs of the organization, employees and guests. Examples of process documentation for significant loss cost exposures could include:

Slips, Trips & Falls

- Management policy
- Interior conditions
- Restrooms
- Guest rooms, including bathrooms
- Elevators/escalators
- Exterior conditions
- Restaurants
- Lounge/banquet/meeting room
- Pools/spa area
- Fitness facilities
- Guest transportation
- Playground/arcade area
- PPE, slip-resistant footwear
- Cleaning supplies used

Food Safety

- Management program for food and liquor
- HACCP/ServeSafe program
- Alcohol beverage training
- Guest feedback
- Department of health audits

Security

- Management policy
- Exposure assessment, inclusion of local crime statistics
- Illumination
- Crime prevention through environmental design
- Access controls (locks/alarms/monitoring)
- Staff pre-placement screening
- Staff training

Fire Prevention

- Management policy
- Fire detection, alert and response (smoke detectors/sprinkler system/extinguishers/alarms)
- Kitchen controls (extinguishing system/hood and duct cleaning/filters)
- Smoke barriers/controls
- Evacuation plans and drills

Occupational Safety

- Management policy
- Material handling
- Ergonomics
- Machine guarding
- Electrical exposures
- Cuts/knives and burns, including bloodborne pathogens

Vehicles

- Management policy
- Driver motor vehicle record evaluations
- Safety training
- Maintenance/inspection
- Guest transportation
- Valet parking
- Non-owned vehicles

Conclusion

Safety professionals have a responsibility and accountability to improve an organization's financial results. The information and conclusions in this case study can be used as instruments of positive change. Look for opportunities to use this approach with accounts or within an organization. The keys



to success are to be open-minded to change, critically assess today and develop a vision of where to be in the future, develop an implementation strategy, be patient (change takes time), communicate openly to everyone so employees can understand the current situation, why change is necessary and why it is to their advantage to make changes. Honest communication builds bridges of understanding and trust. Be inclusive and talk to everyone involved, not at them. Respect other people, their ideas and effort. Recognize the contributions of others, celebrate success and reward accomplishments. Success occurs when employees not only understand the goals, but also internalizes them so their actions and words mirror the objectives of the organization.

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Service Branch Resources

Mentoring Services: Visit the [Members Only section](#) of ASSE's website and click "Mentor Contacts" or contact [ASSE staff](#).

Job Search Assistance: Visit [Nexsteps](#), ASSE's [Career Resources LinkedIn site](#) or your local [chapter site](#) to view SH&E job postings.

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Standards: [ANSI/ASSE SH&E Standards Information Center](#), [new standards](#) and ASSE's [Standards Development Committee](#).



Occupational Health Issues: Chemical Exposure of Nail Salon Workers

By Hsiao-Tien (Tina) Chang

The salon industry is a vibrant part of the U.S. economy. Salons generate approximately \$66 billion in annual sales, and nail salons contribute more than \$6 billion of this total. Also, approximately 155,000 people are employed in nail salons and other personal care services in the U.S. The workforce is largely female (75%) with the industry employing a large number of minority workers (46%), specifically Asian immigrants (38%). Most of the nail salon workers are women of fertile age, so they are vulnerable to chemical exposure. The use of manicure and pedicure services has grown dramatically in the past 20 years with the increase in discount salons owned and staffed by Vietnamese refugees and immigrants (Federman, et al., 2006).

Nail salon workers provide pampering and beautifying treatments to their customers but are exposed to serious occupational hazards. Nail technicians are at risk of developing illnesses as a result of chemical exposure, contracting infectious diseases and sustaining ergonomic injuries. This article focuses on chemical exposure of nail salon workers.

Chemicals in Nail Salons

Nail products contain many small amounts of toxic and potentially hazardous ingredients, including solvents, plasticizers, resins and acids. The chemical mixtures comprising nail products may affect workers through multiple routes of exposure and may be toxic to several body systems. Nail polishes contain xylene, toluene, toluene sulfonamide formaldehyde resin, formaldehyde and other chemicals. The most frequently discussed chemicals are DBP, toluene, formaldehyde and ethyl methacrylate (EMA).

DBP is a plasticizer used to make nail polish products more flexible. Recently, all leading

brands have eliminated this chemical in their products.

Toluene, a solvent used in nail polish products to make products flow more smoothly, has been found safe as used in nail products by the European Union, which is charged with the safety of cosmetic ingredients.

Formaldehyde is used as an ingredient in nail hardeners. It is a specialized product in limited use in nail salons. It is not used as an ingredient in nail polish or in nail treatments other than hardeners. The U.S. Food and Drug Administration allows up to 5% formaldehyde in hardeners. Manufacturers typically use substantially less than half this percentage in their formulas.

Artificial nails are generally made with a two-part liquid and powder polymer acrylic resin chemistry borrowed from dentistry. EMA is the primary chemical used to make artificial nails, and the chemical that accounts for the characteristic strong odor in many nail salons is recognized as a sensitizer, repeated exposure to which may cause asthma and dermatitis.

Occupational Health Issue

The Occupational Safety and Health Act covers nail salons, but due to their small size and the perception that they do not have significant hazards, few have seen an inspector. Moreover, most nail salon workers are immigrants whose first language is not English, and some of them have been threatened by immigration status issues. Thus, it is hard for them to fill out a complaint about health and safety issues in the workplace. Some organizations, such as the American Civil Liberties Union, the Nail Manufacturers Association, NIOSH and EPA, have noticed these issues. They have conducted research on nail salon workers' health and found that the primary health risks to nail salon workers are skin irritation or allergies and respiratory irritation, not cancer or reproductive effects.



Sampling Method

One of the articles reviewed used sampling pumps and tubes with Anasorb 747 as sorbent to collect air samples that were used to measure solvents in the workroom air. All measurements in this research were stationary. The sampling tubes were attached close to a nail technician's breathing zone (Gjolstad, et al., 2006).

Another article used a community-based occupational health survey to conduct the investigation (Roelofs, et al., 2008). The study incorporated standardized and validated health questions where possible. In one example for respiratory health, they used the American Thoracic Society's questionnaire and its updated and expanded version, the Protocol for the European Community Respiratory Health Survey (<http://www.ecrhs.org/quests.htm>).

OSHA's website lists the protocol sampling methods for each chemical. It provides the information of sampling time and sampling rates for different samples. OSHA has also published a technical manual that includes one chapter about personal air sampling for air contaminants. The chapter addresses organic vapors and gases sampling. It introduces four different methods to collect air samples. The first method uses solid sorbent sampling tubes, the second method uses a passive monitor or badges, the third method uses impingers and bubblers and the fourth method uses gas sampling bags and canister samplers. OSHA has a protocol for each method.

Control Methods

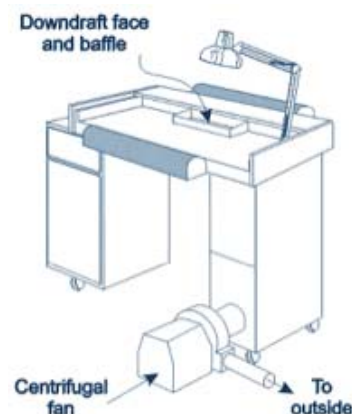
OSHA has standards for chemical exposure that were designed for high exposures in industrial environments. They do not cover many of the new chemicals used in nail products, and they do not consider skin absorption. Nail salon workers cannot be protected by these standards. The standards also designed to address acute symptoms, not chronic exposure, which can result in asthma.

Nail salon products are typically used in small amounts that can further lower the risk of overexposure. Yet, if proper care is not taken, overexposure may occur and could result in adverse health effects, such as skin irritation, allergic reactions or serious eye injury. However, several strategies can decrease nail salon workers' exposure to these chemicals.

Improving ventilation and providing proper masks to salon employees can minimize worker inhalation of chemicals in nail salons. Also, educating workers to practice good personal hygiene, such as washing hands before and after each service and providing proper gloves to workers and replacing gloves immediately if there are cuts, tears or holes, can minimize salon workers' skin exposure to chemicals. Keeping food and drink away from the work area, separating the dining area from storage and working areas and storing nail products away from food and the eating area can prevent the accidental swallowing of products.

NIOSH has proposed a ventilated table (Figure 1) that can protect nail technicians from breathing in EMA. However, one study showed that there is no difference in chemical exposure level in nail salons with ventilated tables and without. This result might be caused by only sampling a few number of nail salons. Hence, this outcome cannot conclude the efficiency of ventilated tables.

Figure 1. Ventilated table.



The methods mentioned here are not difficult to implement and can reduce the amount of

chemical exposure. Most importantly, provide hazard communication training for nail workers before they work. Workers need to have adequate knowledge of how to protect themselves from hazard exposures and how to prevent safety and health issues from occurring.

Recommendations

By changing formulas in nail products as an engineering control, many nail product manufacturers eliminated or reduced the amount of hazardous chemicals used. It is great news for the public, especially for nail technicians. However, administrative controls for nail salon workers are still weak, so government agencies have room to make regulations or policies for the nail industry.

OSHA does not pay much attention to the safety and health issues of nail salon workers because the amount of chemical usage is small. Also, the majority of nail salon workers are immigrants who have limited language ability so that reduces the amount of complaint cases be filed. OSHA should implement regulations or standards specifically for nail salon workers. Furthermore, OSHA should have policies that ensure that workers' immigration status will not be used against workers who come forward or cooperate with OSHA.

OSHA can provide hazard communication training or outreach to educate nail salon workers. OSHA should also provide the staff of community-based organizations with the resources and support needed to address chemical safety concerns as part of their outreach.

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